THE AUTOMOTIVE EDGE™

06.08

The Official Publication of the
NATIONAL LOCKSMITH
AUTOMOBILE ASSOCIATION™

2008 Chevrolet Impala LT

The 2008 Chevrolet Impala has changed little since the 2006 makeover. There are five trim levels on the Impala platform. They are the LS, LT, 3LT, LTZ and SS. Remote Keyless Entry is standard on all models. Head protecting side curtain air bags are standard on all models. There are no air bags contained in the door panels.

The Impala (2006–08) is equipped with only two key operated lock cylinders. The ignition and drivers door cylinders use the Strattec 93-Groove "Z" keyway. The ignition uses the PK-3 (+), circle plus, transponder system. These keys use the G0001–3631 code series. There are five depths and ten positions on this keyway. Codes will be found in the InstaCode program.

The Impala, in all trim levels, uses the CSS, Non-MRD, tilt column. Strattec lists replacement ignition and door cylinders for this vehicle. Strattec PN #709271 is the correct ignition for the 2006, 07 & 08 Impala. This Strattec ignition is serviced by; tumblers PN #324121–324125, and springs PN #056445. *(This ignition is common to many (47) other GM/GMC autos and trucks, from 2006 to 2008.)* The door cylinder is Strattec PN #708593. The door cylinder is serviced by; tumblers PN #323711–323715, and springs PN #46890. *(This cylinder/handle/trim combination is common to the 05–08 Buick Lacrosse and Lucern models.)*

Transponder key blanks: ILCO B111-PT, Strattec 5903089 or 692931, and Hata GMX100C are applicable to the Impala. If you are making a key by reading the door cylinder and using the "Find Bitting" function of the InstaCode program to complete the key, you will find the JMA GM37 NP blanks suitable as work keys.

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Here are the two best websites for Automotive Locksmiths:

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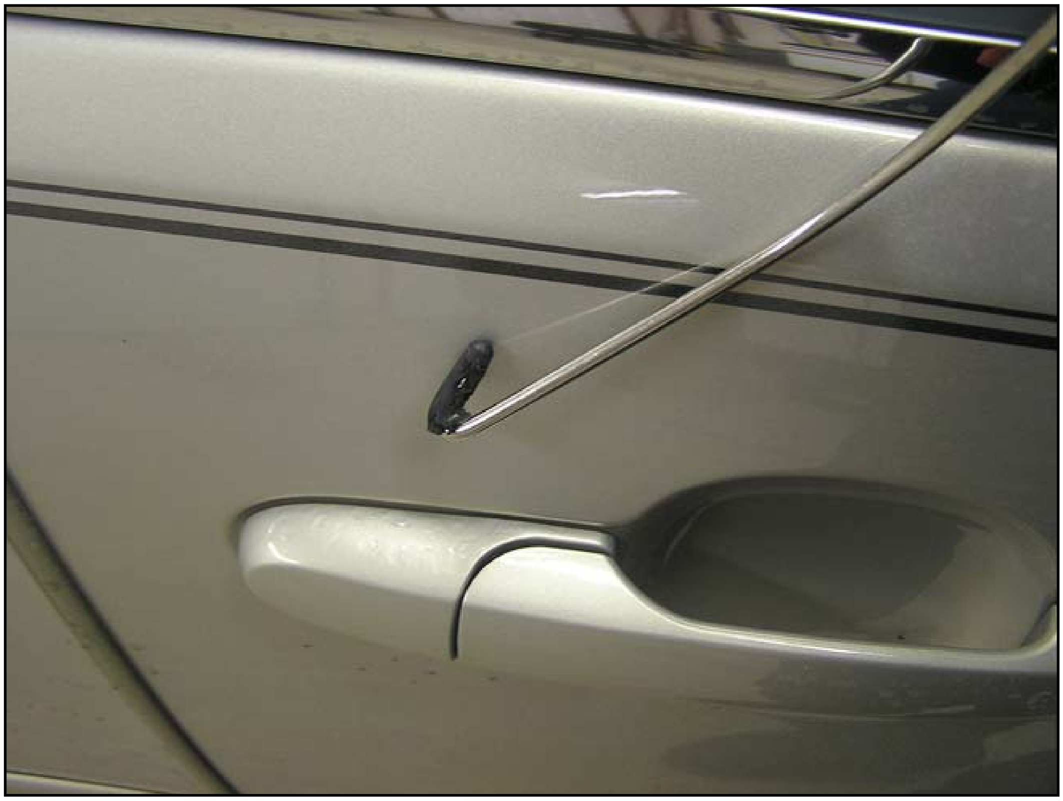
Online Store, Tech Support

www.Laserkey.com
Product & Technology Sales,
Transponder Information Resources

1. If called to open the 2006–08 Impala, the vertical button tool will make short work of unlocking the driver or passenger door. The passenger door, though it does not have an external keyed lock cylinder, is to be preferred over the driver's door because it will usually have less electrical control wiring. The vertical button tool has a rubber friction boot, to increase the lifting efficiency of the hook.



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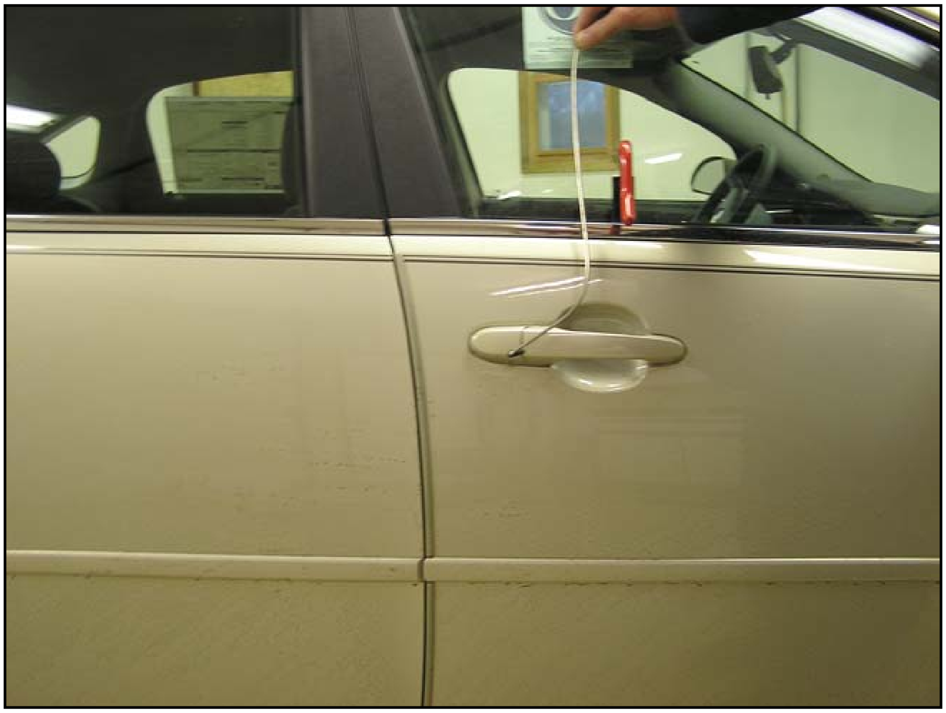
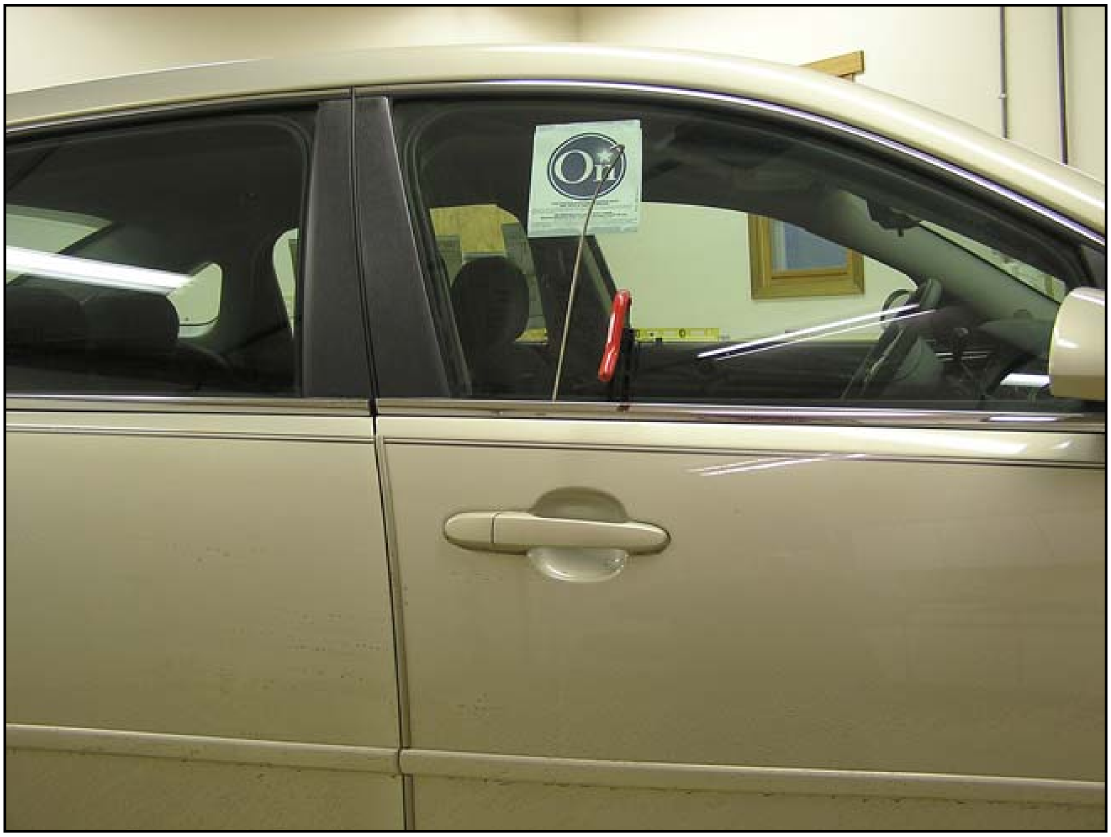
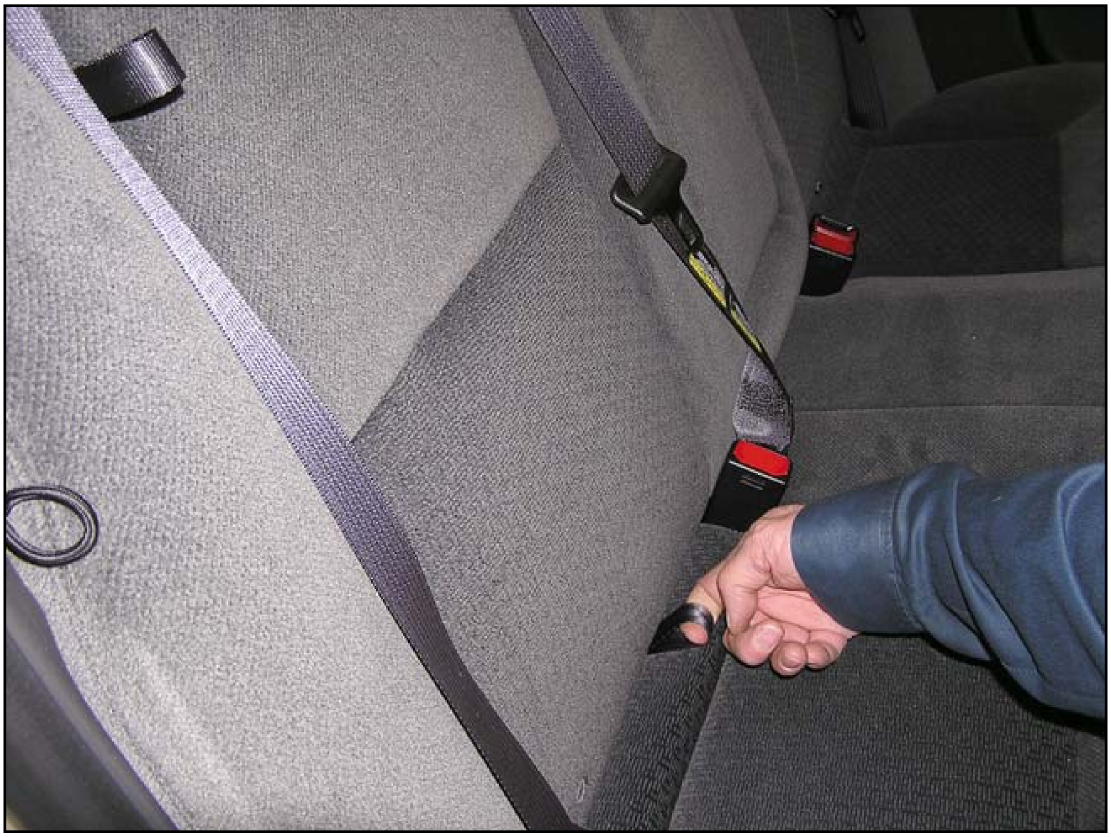


2. Photo shows the position of the tool in the door. Carefully wedge the rubber weather molding away from the glass, about eight inches from the rear of the glass. Wedge the glass only enough to easily insert the opening tool. Insert the tool with the tip facing rearward, to hook the vertical linkage from the outside. The tip of the tool will be slightly below the door handle, inside the door.

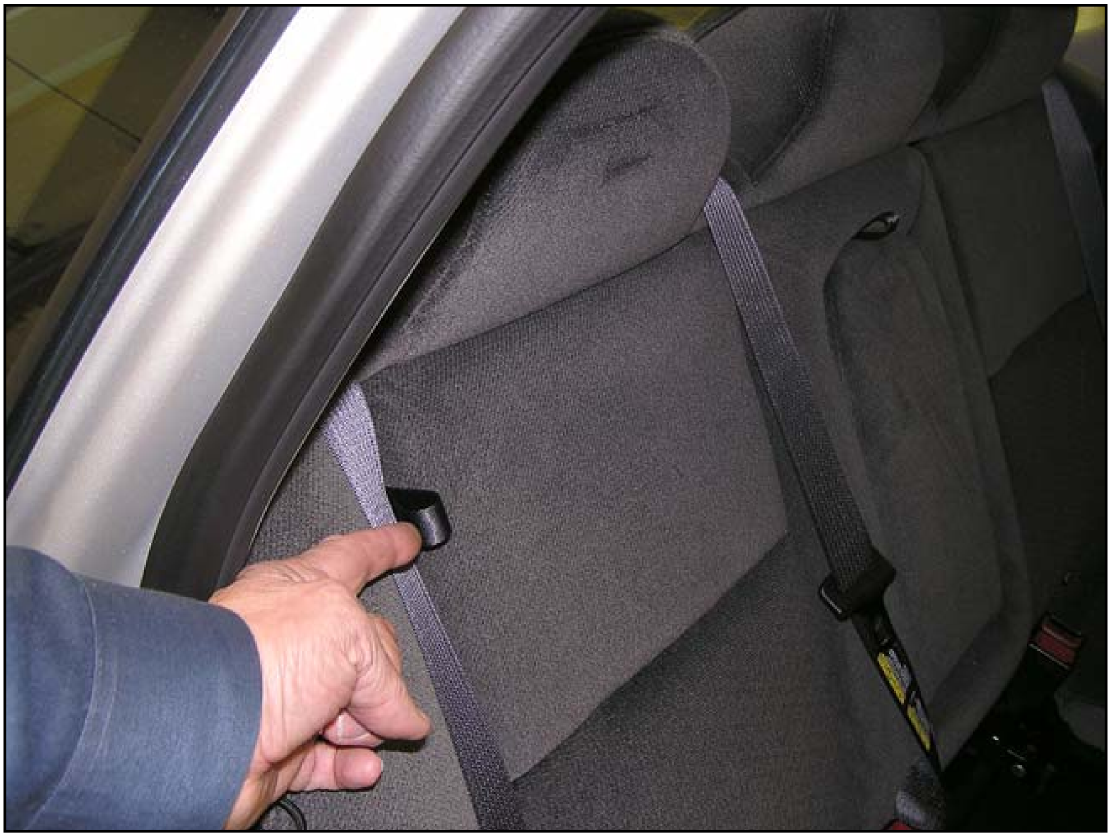


3. Photo shows the position of the tool in the operating position. Move the tool forward to grip the linkage rod. There is an offset in the button rod, where it passes through the inner door panel. Watch for movement of the inside lock button. Lift the tool to unlock the door.

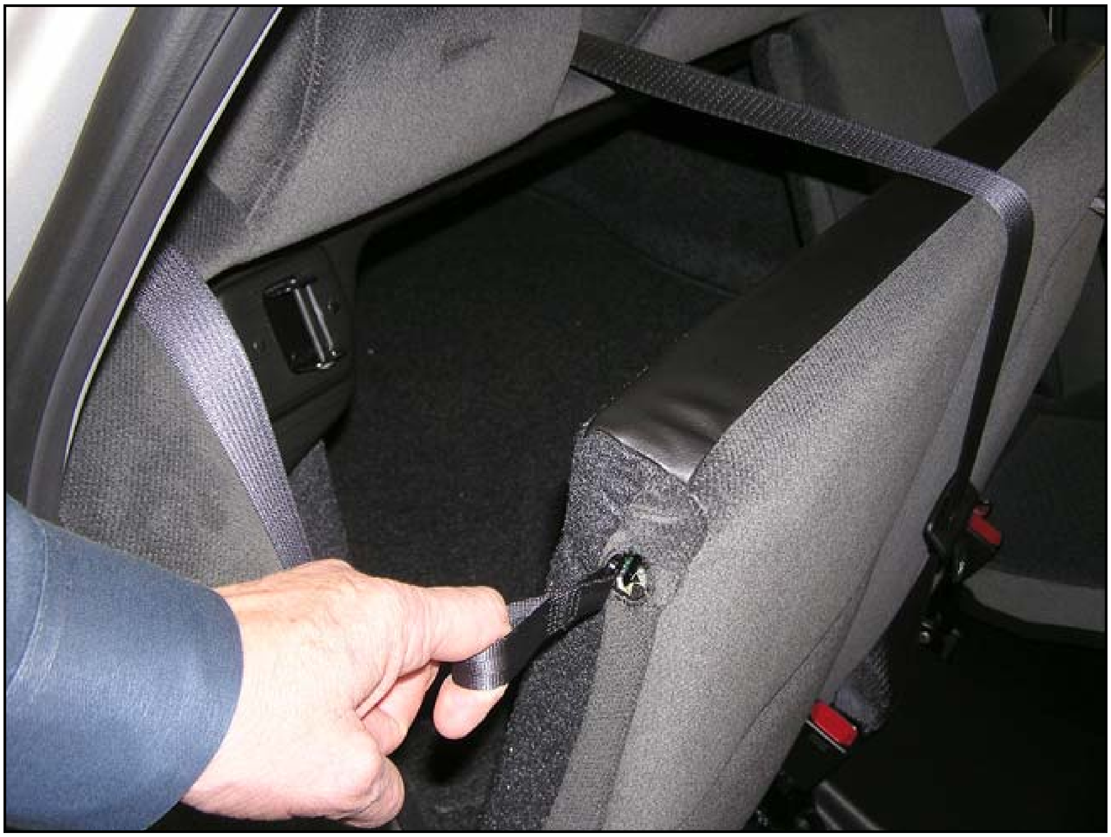
Rear Deck Lid:



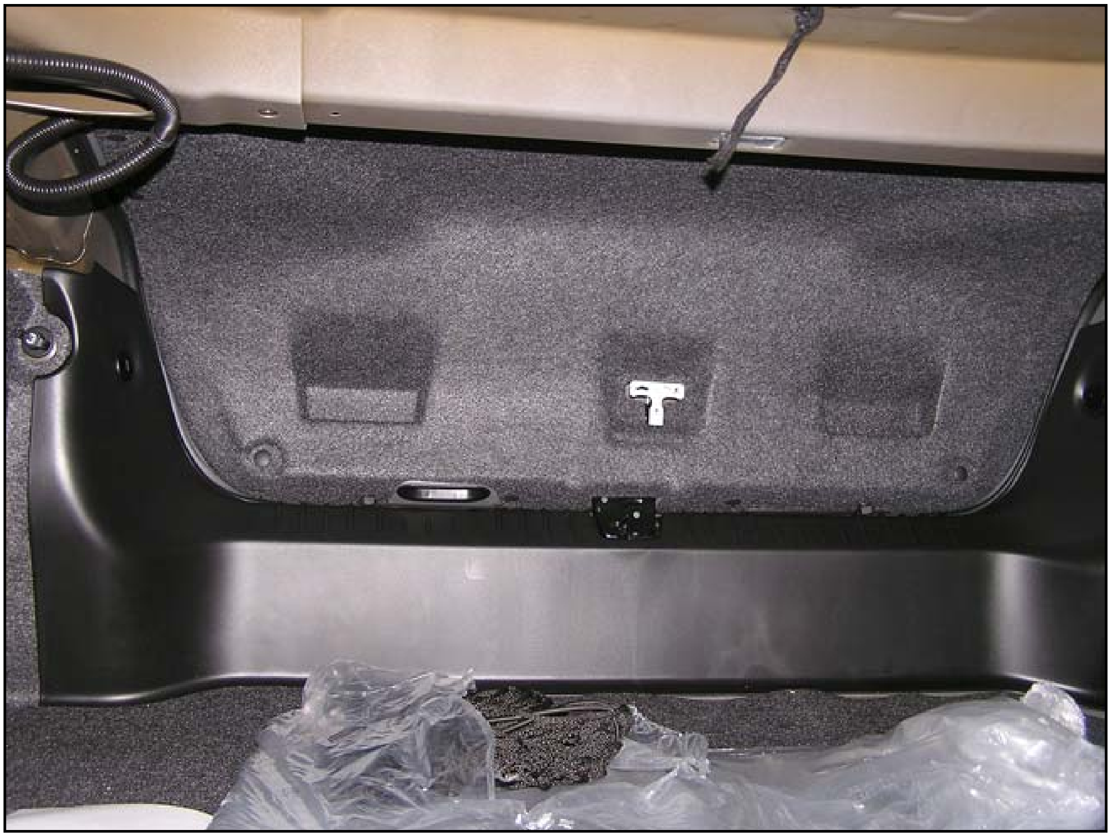
4. The rear deck lid is not accessible by a key operated cylinder. The deck lid can be opened by the remote keyless entry fob or by a press button in the door panel. If the keys are locked in the trunk, access can be gained through the rear seat. "Flip & Fold" rear seating is standard on LT and above trim levels. Nylon pull loops are found at the rear of the bottom cushion to lift the lower seat cushion forward.



5. A nylon pull loop is found at the outside top corner of the upper seat back. The pull loops may be pushed back into the cushion, but if you run a finger up the crack, the loop can be located easily.



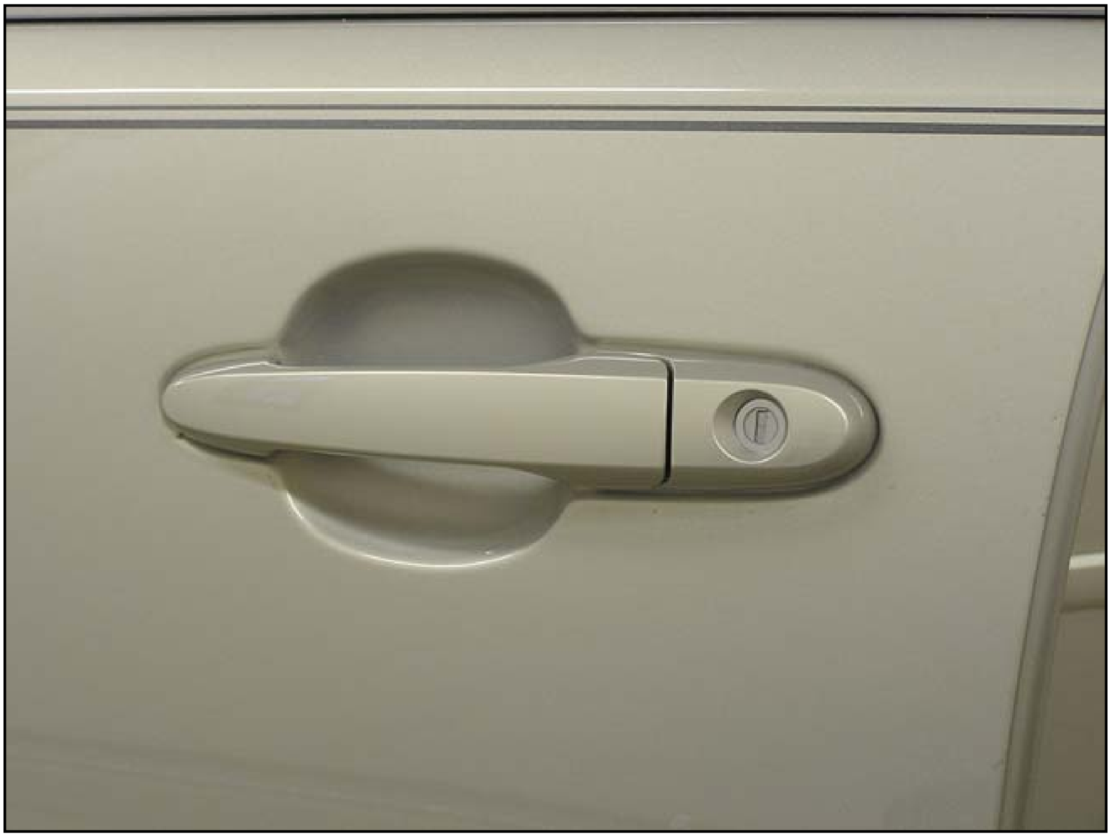
6. Tug on the pull loop to unlatch the seat-back cushion. The back will fall forward to create a flat deck into the trunk. The "Flip & Fold" rear seating gives extra trunk space for large packages. It also allows free access to the trunk area.



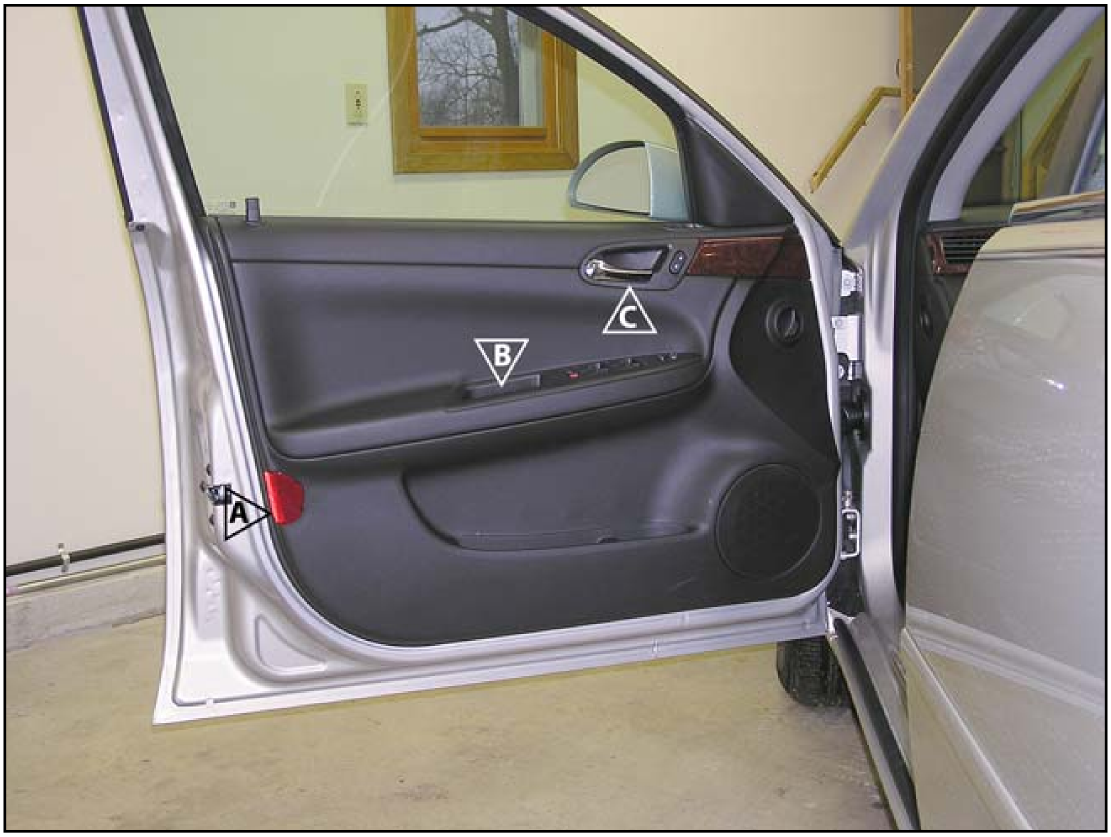
7. Release the rear deck lid by pulling the emergency exit pull handle, shown at "A."

Glove Box Lock:

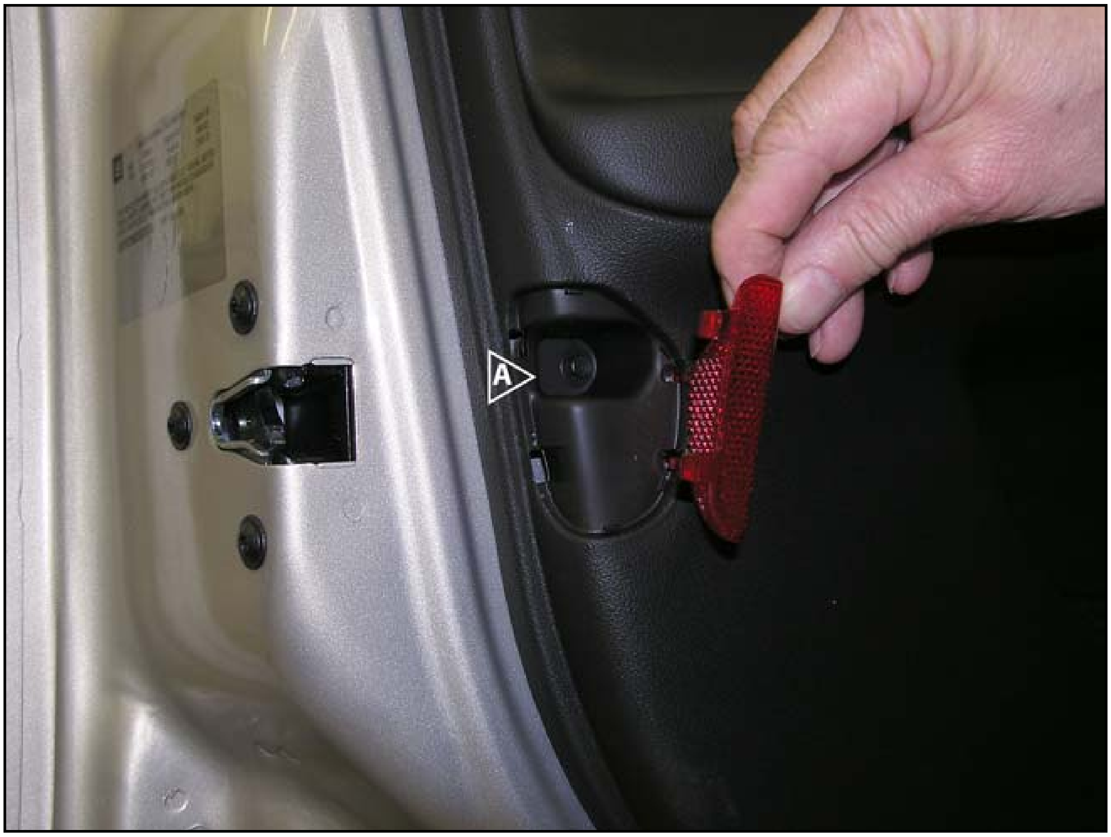
8. The glove box is located under the dash, and is non-locking. In the vehicles surveyed, no locking glove boxes were seen. The option to upgrade to a locking glove box was not found in any literature.



9. The driver's door contains the only exterior locking cylinder on this vehicle. The lock cylinder is contained in the rear portion of the pull handle trim. This cylinder is retained by two machine screws, accessible from inside the door cavity.

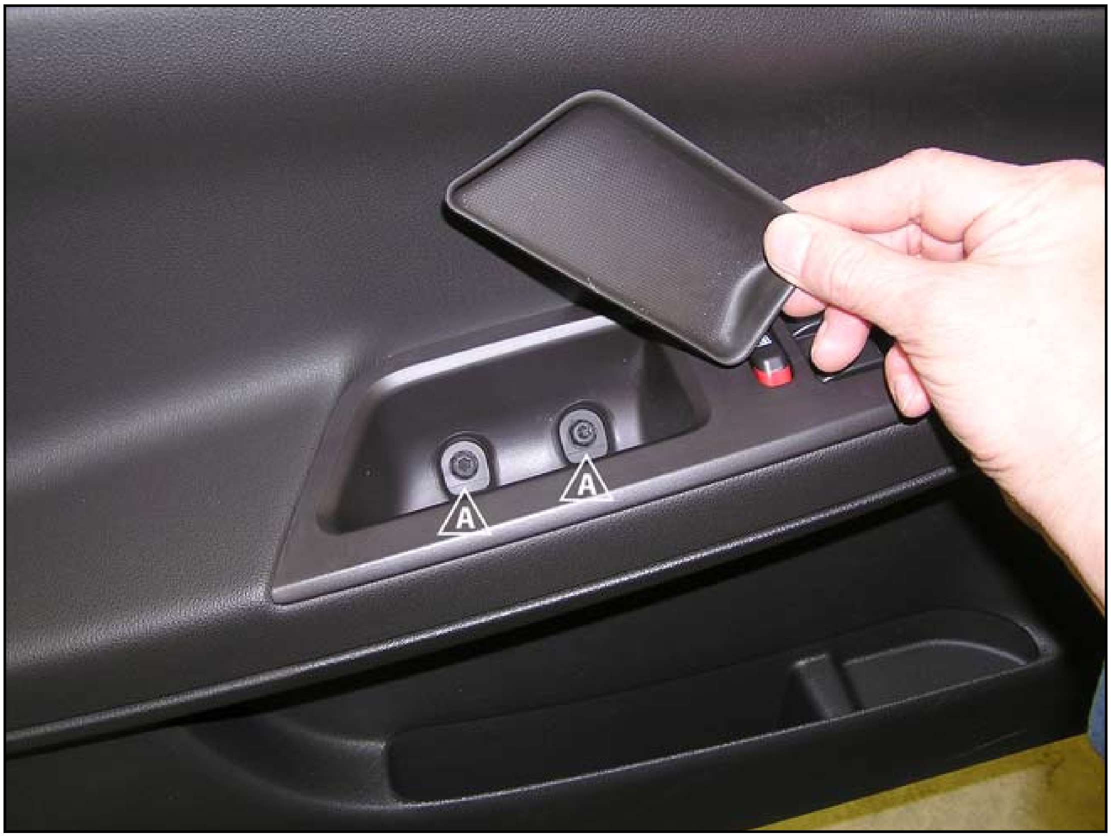


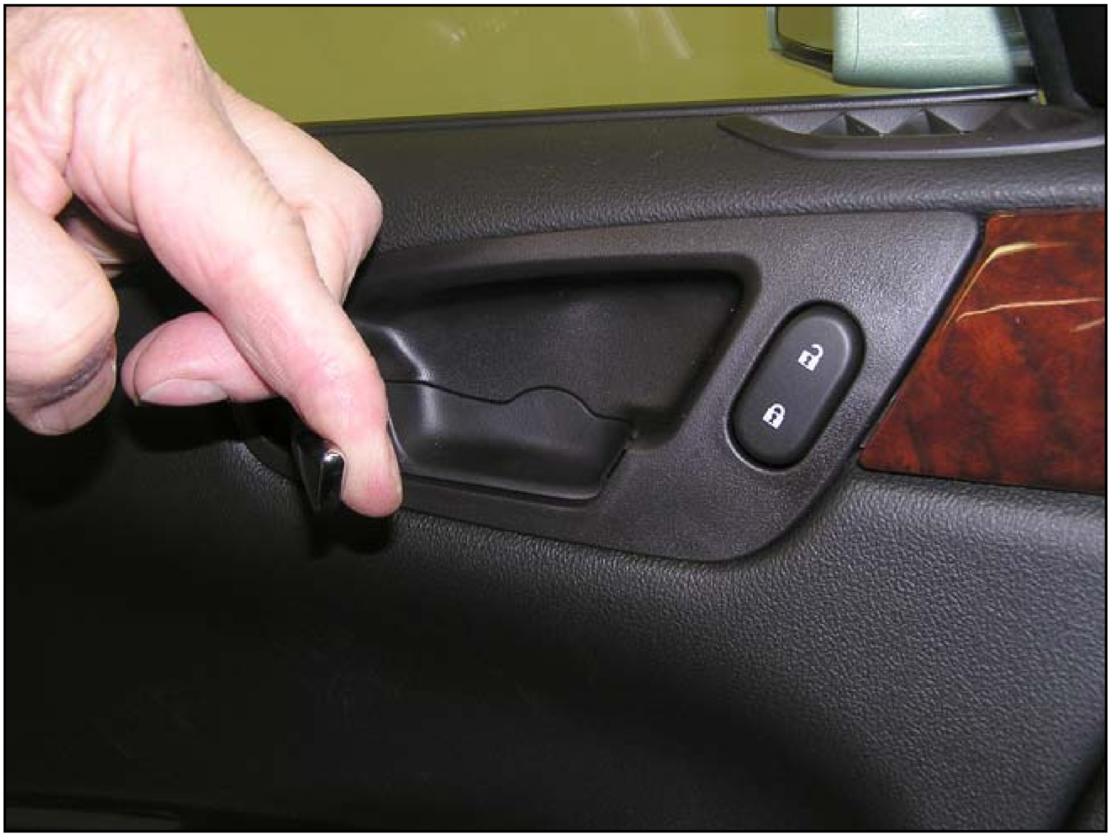
10. Access to the inner door cavity requires removal of the inner door trim panel. The inner door panel is secured by four threaded fasteners, and a number of friction posts. Photo shows the locations of the threaded fasteners. Threaded fasteners will be found at; "A" behind the red safety reflector, "B" in the door pull finger well, and "C" under the door latch handle.



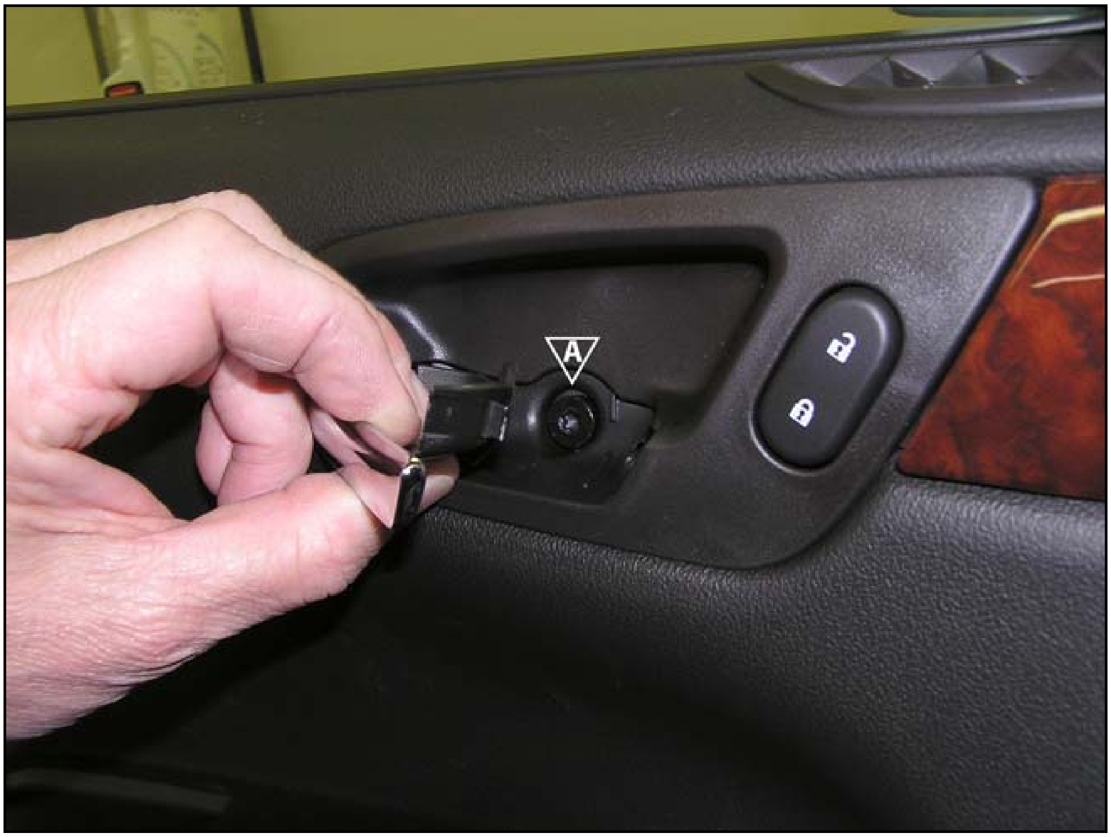
11. To remove the red safety reflector pry out the rear of the reflector. Dislodge the two friction catches at the rear of the plastic reflector, and hinge it forward to remove two retaining fingers at the front. Do not pry the front edge of the reflector. The reflector conceals a single 7 mm hex head trim screw, "A." Remove the trim screw.

12. A flexible rubber cup, in the bottom of the door pull handle finger well, conceals two combination head trim screws, "A." Remove the rubber cup to reveal the trim screws. You may use a T-30 Torx driver or 10 mm socket/ nut driver to remove these two fasteners.

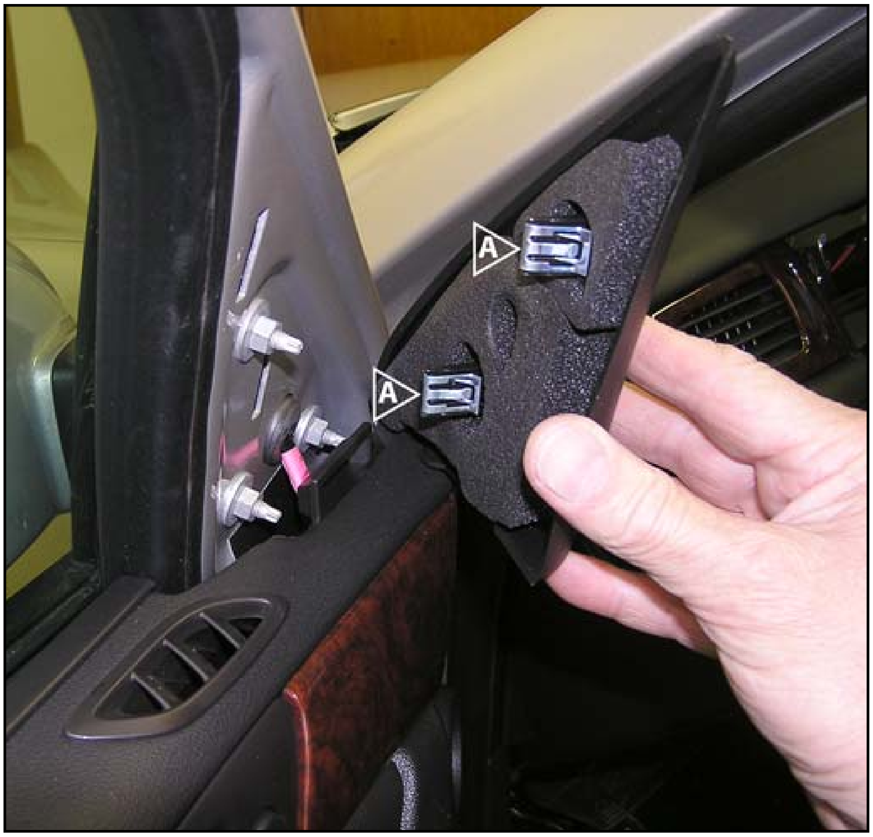




13. The remaining trim screw is concealed by a snap cover under the door latch handle. Pull the latch handle to reveal the trim cover. At the front edge of the trim cover, is a slot "A," that will accommodate a small flat blade screw driver. Pry the trim cover rearward and it will pop out of the recess to reveal the final trim screw.



14. The trim cover has been removed to reveal the trim screw "A." Use a T-30 Torx driver to remove the trim screw. The trim screw holds the latch handle assembly to the metal door body. When the trim panel comes away from the door body, the latch handle assembly will remain a part of the trim panel.



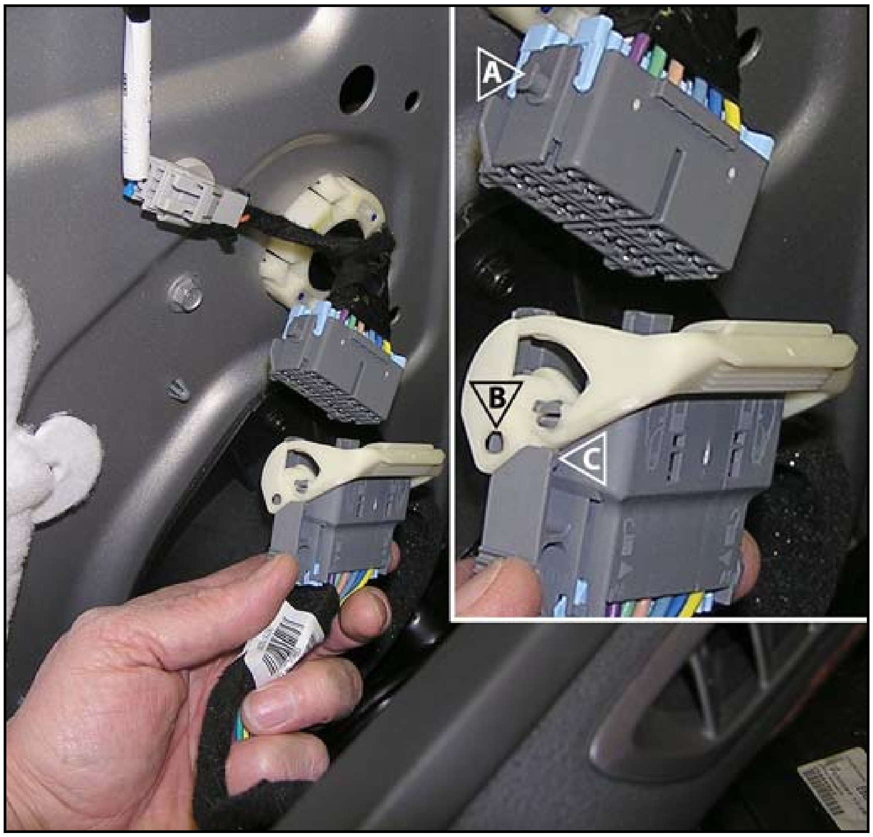
15. The mirror mounting bolts are concealed by a triangular trim piece at the top front corner of the door panel. The trim panel is retained by two friction tabs, "A." A flat tab on the bottom of the trim panel interlocks with the main door trim panel. Carefully pry the trim panel away from the metal door body.

At this point, the main door trim panel is attached to the metal door body by seven (7) friction post fasteners. Carefully pry outward at the bottom rear corner of the trim panel to dislodge the lower friction post catches. Follow around the trim panel to dislodge the remaining fasteners. Hinge the trim pad away from the door body, and lift the pad upward to unhook the top edge of the pad from the rubber window seal. Lift the pad over the vertical lock button.

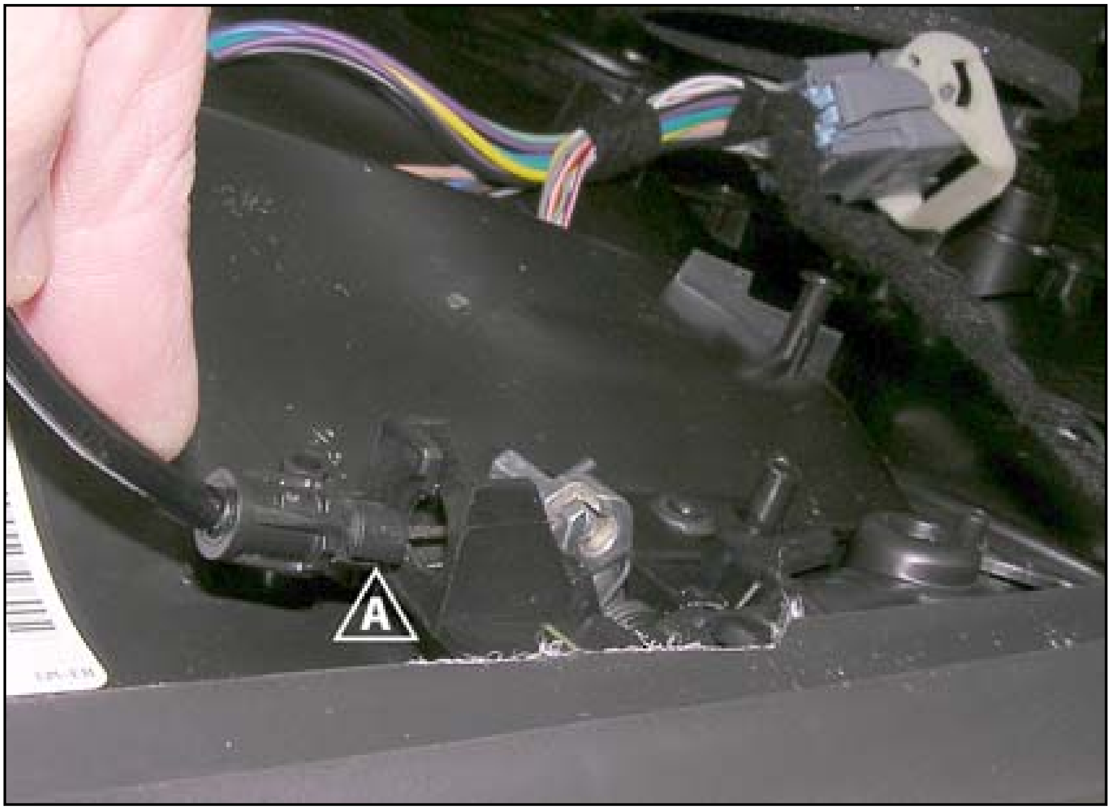
The door trim panel will be tethered to the door body by the latch linkage cable and a multi-conductor electrical harness connector.

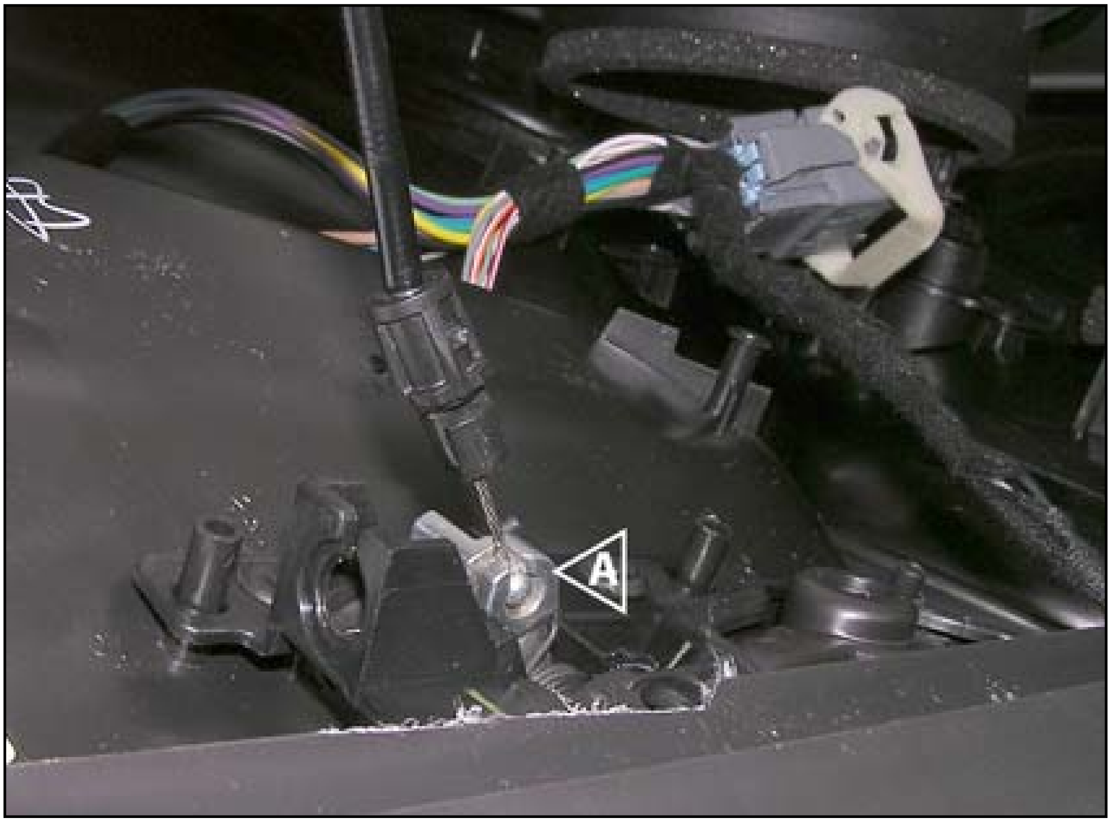
16. To separate the multi-conductor harness connector, grip the connector as shown in photo. Squeeze the locking arms, as you see, and pull the white plastic bail away and downward. The plastic bail will eject the plug from the receptacle as it is pulled away.

From the enlarged inset, you may better see the plastic pin "A," on the plug. There are two pins on the plug, one you see on the front and the other on the opposite side. The white plastic bail engages the plug pins as the plug is brought into the socket. As the bail is pushed up, the bail engages the pins and draws the plug and socket together. The bail locks in place as the holes "B" in the bail accept the spring lock pins "C," of the locking arms. The connector is keyed to prevent improper mating. It will only go together one way. Always grip the connector as shown to engage and disengage the connection. Do not tug or pull on the wires.

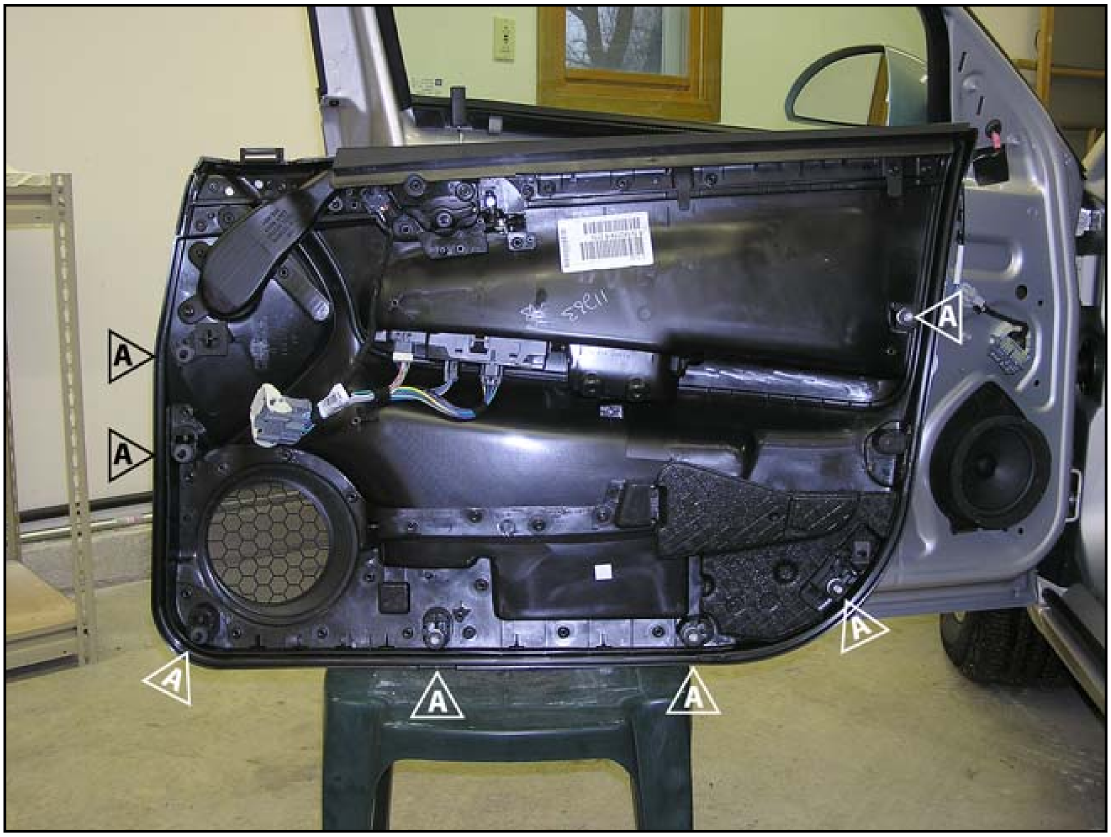


17. To separate the panel from the door body, it is necessary to disconnect the latch pull handle from the linkage cable. The lock latch handle uses a bicycle cable type linkage. To disconnect the flex cable from the latch handle, squeeze the latch barbs "A" on the black plastic cable jacket termination connector with a pair of needle nose pliers and pull the cable from the receptacle. Photo shows the cable after it has been pulled back from the receptacle. Guide the flex-core up and out, through the slot in the receptacle.





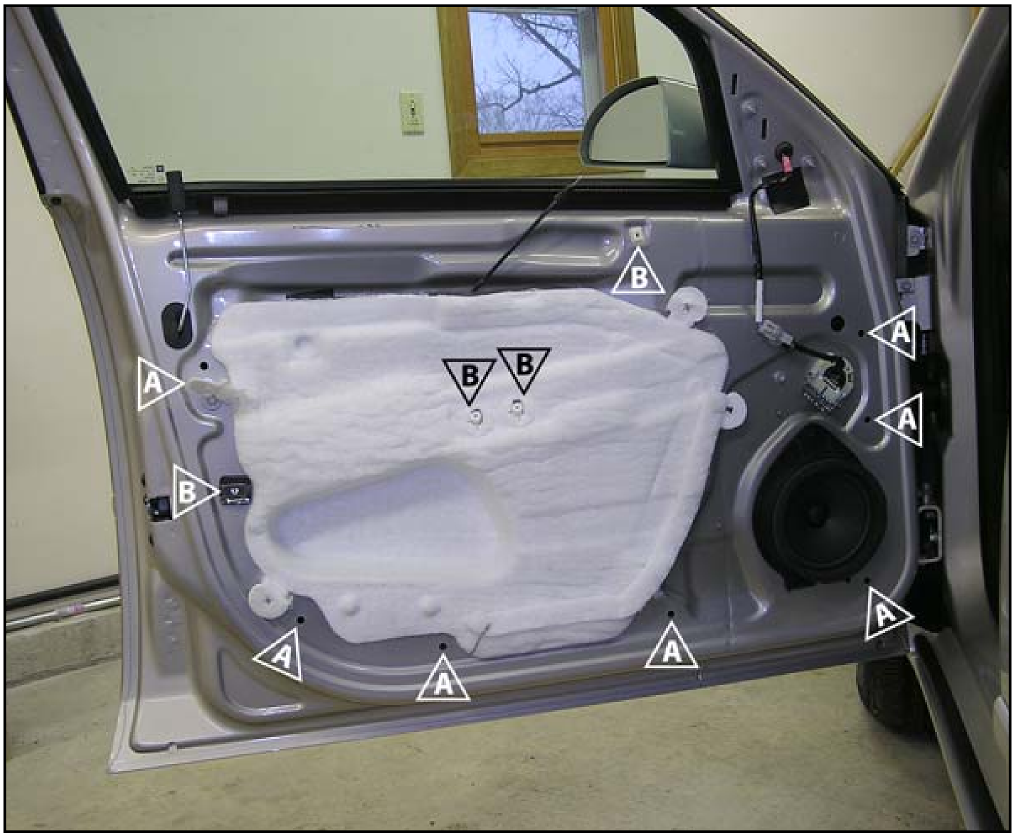
18. Continue to rotate the flex-core until the cable aligns with the assembly slot in the pull handle, as you see at "A" in photo. A metal ball is molded to the flex-core tip. It will lift out of the hole in the pull handle, and free the cable from the trim panel. A little care and good judgment in the disassembly process will make reassembly a snap.



19. The inside of the trim pad is shown. Here we can see the locations of the seven post type trim fasteners, "A." They are well designed, for reuse. We didn't break or destroy any, in the disassembly process.

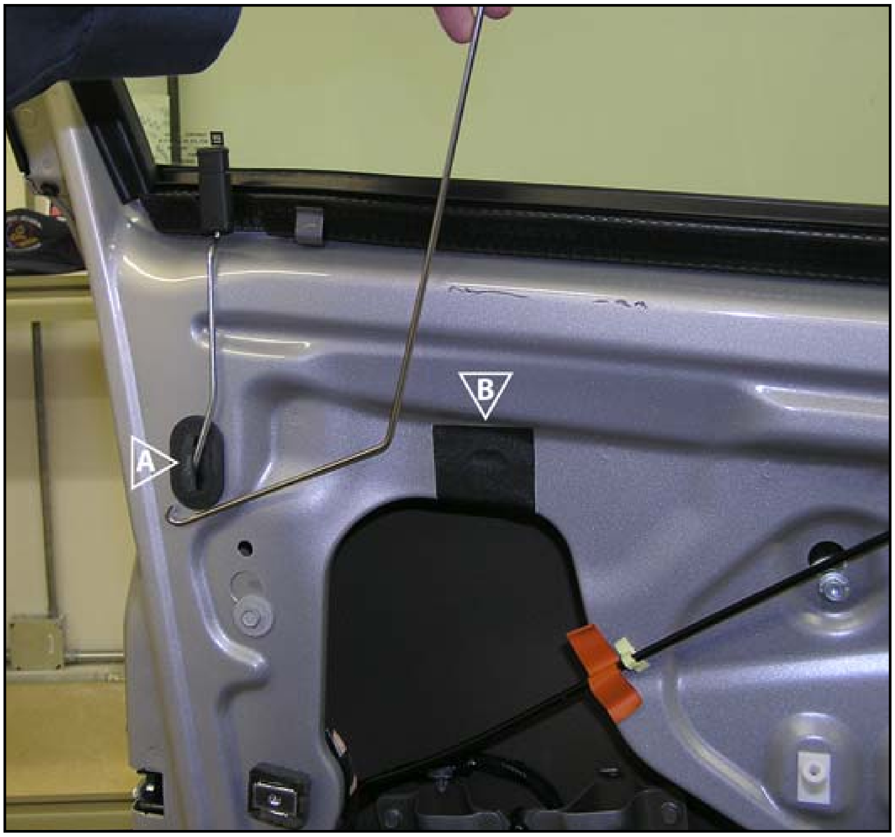
20. The inside of the door body reveals the seven holes for the post type trim fasteners, "A." Four threaded fastener clips, "B," are permanently mounted to the door body. The white door silencer and vapor barrier is adhered to the door by a new type of sticky white plastic calk. If you are slow and careful, it will come away from the painted surface of the door body without leaving a trail of sticky mess. The porous door silencer pad is backed by white structural foam, which gives it form and stiffness, and establishes the vapor barrier.

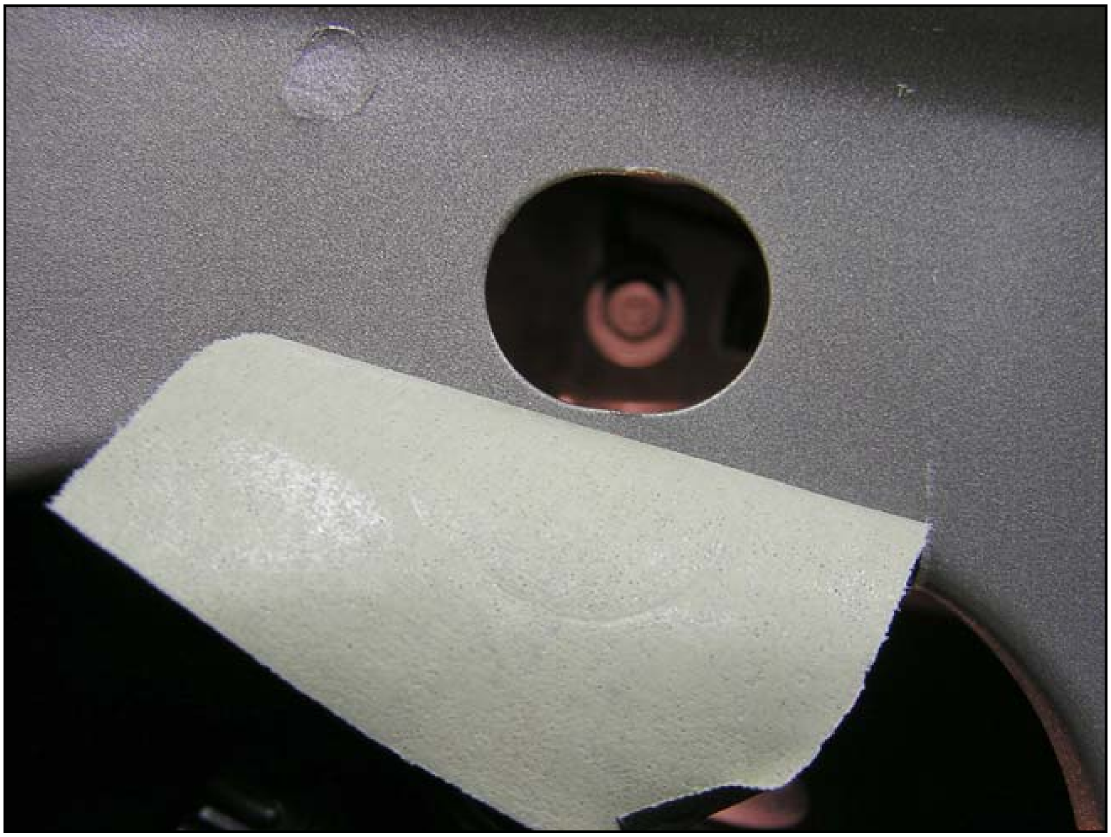
Remove the upper rear portion of the door silencer to access the lock and external handle fasteners.



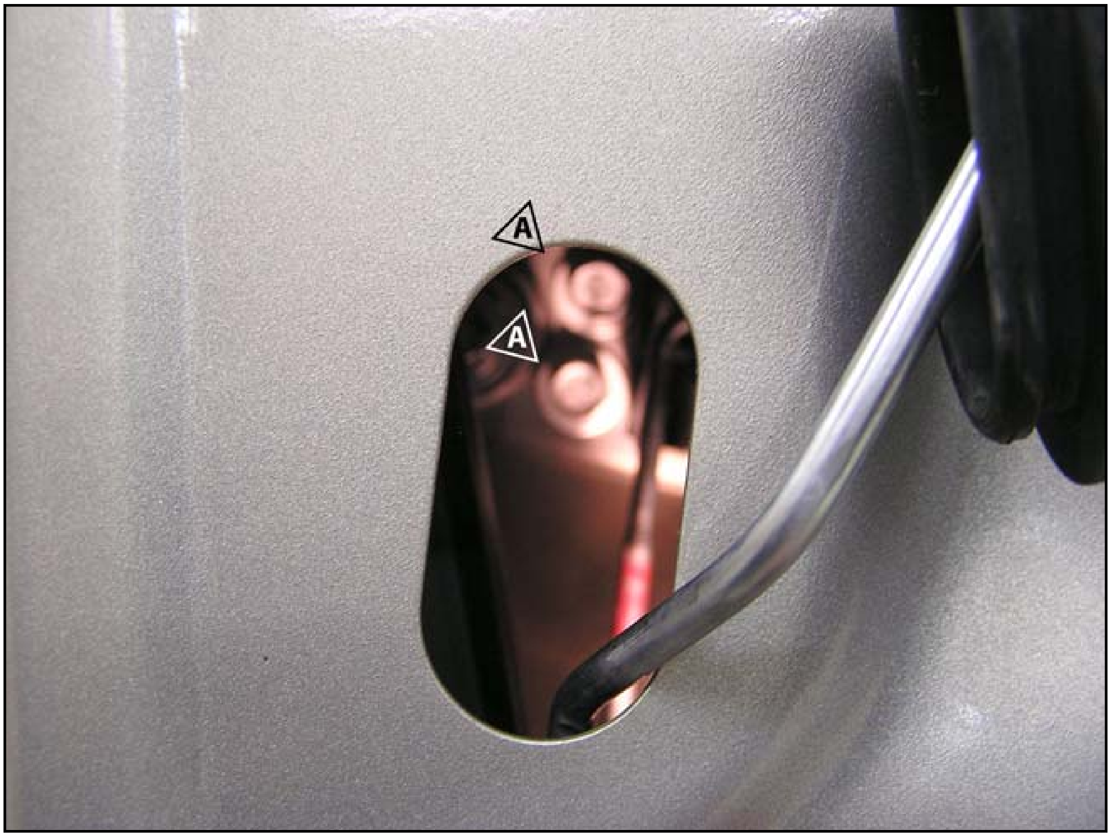
21. While studying the door construction, it seemed like a good idea to try an alternate opening method. Carefully wedge the glass, just forward of the exterior lift handle. Using a simple "up-hook" opening tool, similar to the one shown, introduce the tool with the hook pointing toward the rear of the vehicle, just above the exterior lift handle. Turn the tool so that it contacts the inside metal skin of the door, and move the tool rearward to contact the rear corner of door body. Slide the tool upward, to capture and move the vertical door button rod upward. There is a perfect offset in the button rod, to make this method almost foolproof. At the minimum, it is highly fool resistant. Nothing is "fool-proof."

Insure that the window is in the full "up" position. Dislodge the rubber weather plug at "A," which shields the vertical lock rod, and slide it up the lock rod. There is no need to completely remove it. A piece of black trim tape, much like duct tape, seals a second access hole, at "B."

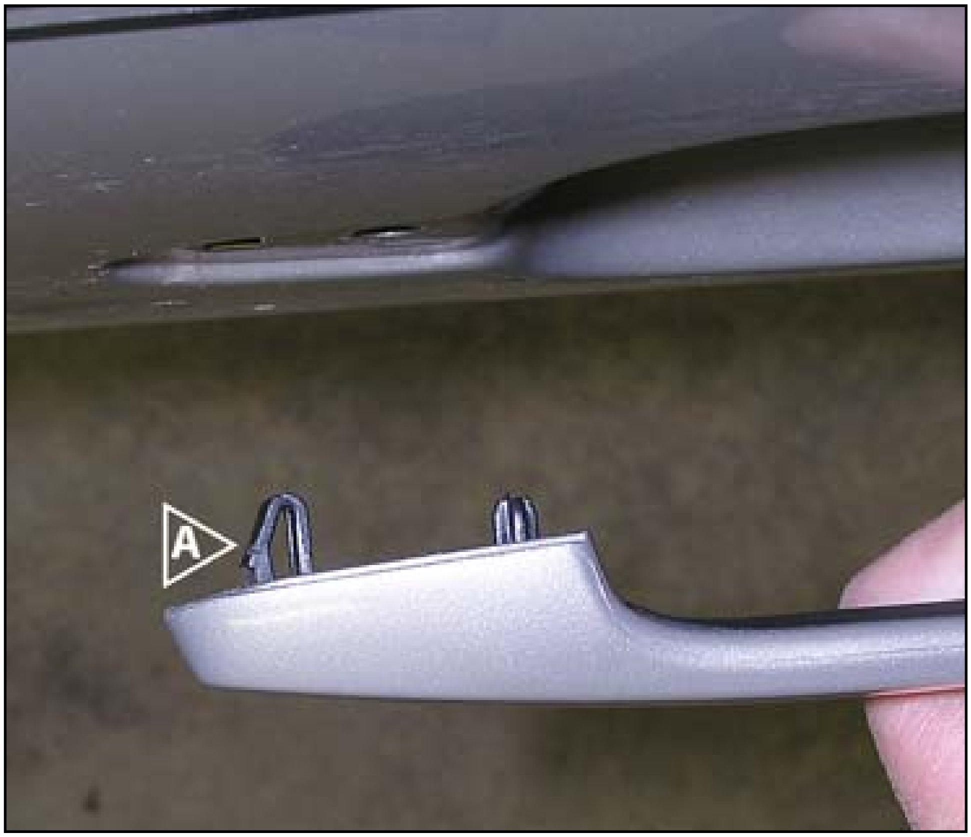




22. Peel the trim tape down, as you see in photo, but do not remove it or double it over, as we will reuse it to seal the hole when we are done. The access hole allows easy in-line access to the front pull-handle fastening bolt. Use a 10 mm socket or nut driver to remove this hex head threaded fastener.

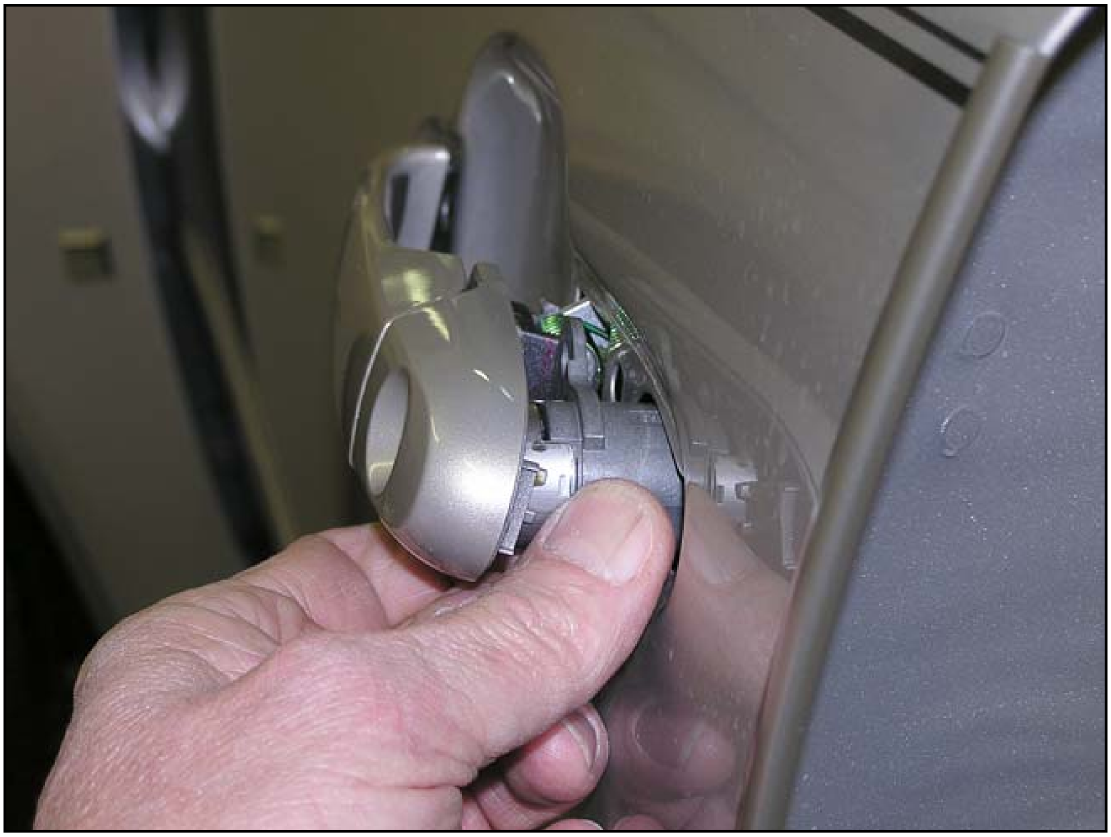


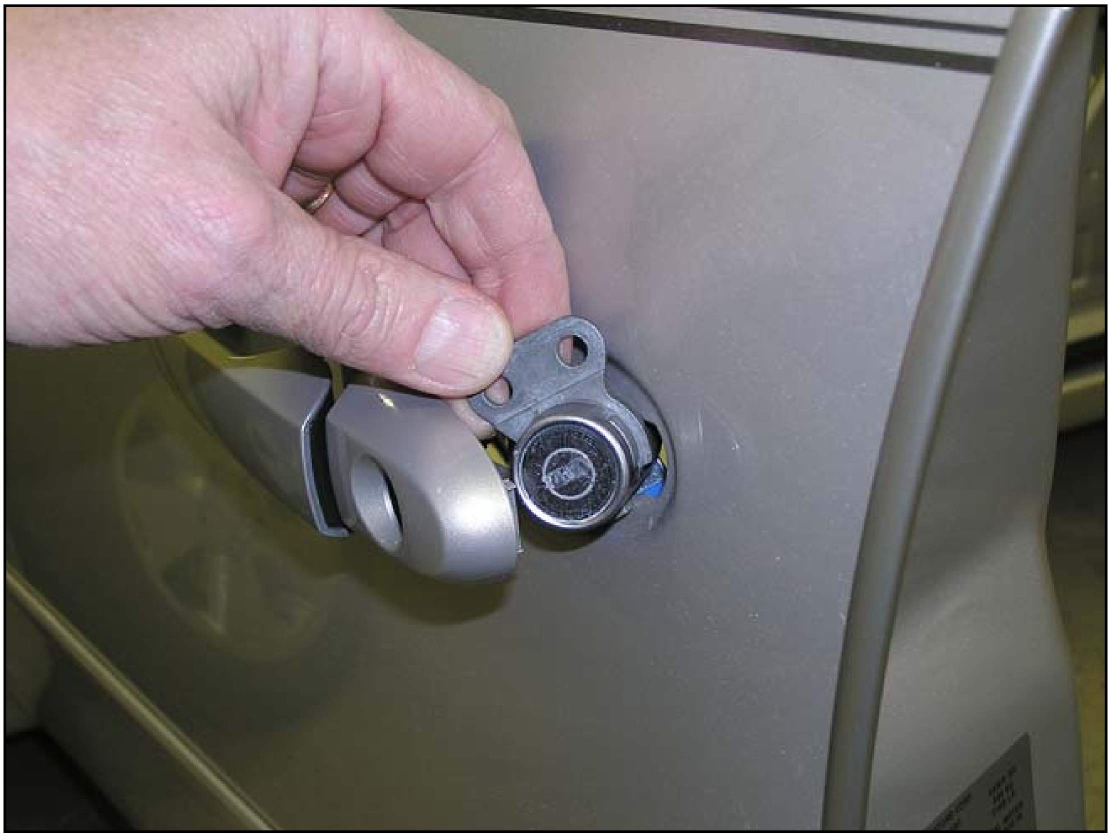
23. Photo shows the in-line access to the rear lift handle fasteners "A." Use a 10 mm socket or nut driver to carefully remove the two hex head threaded fasteners. This will release the rear of the pull handle, except for the latch linkage, which we will not need to disconnect.



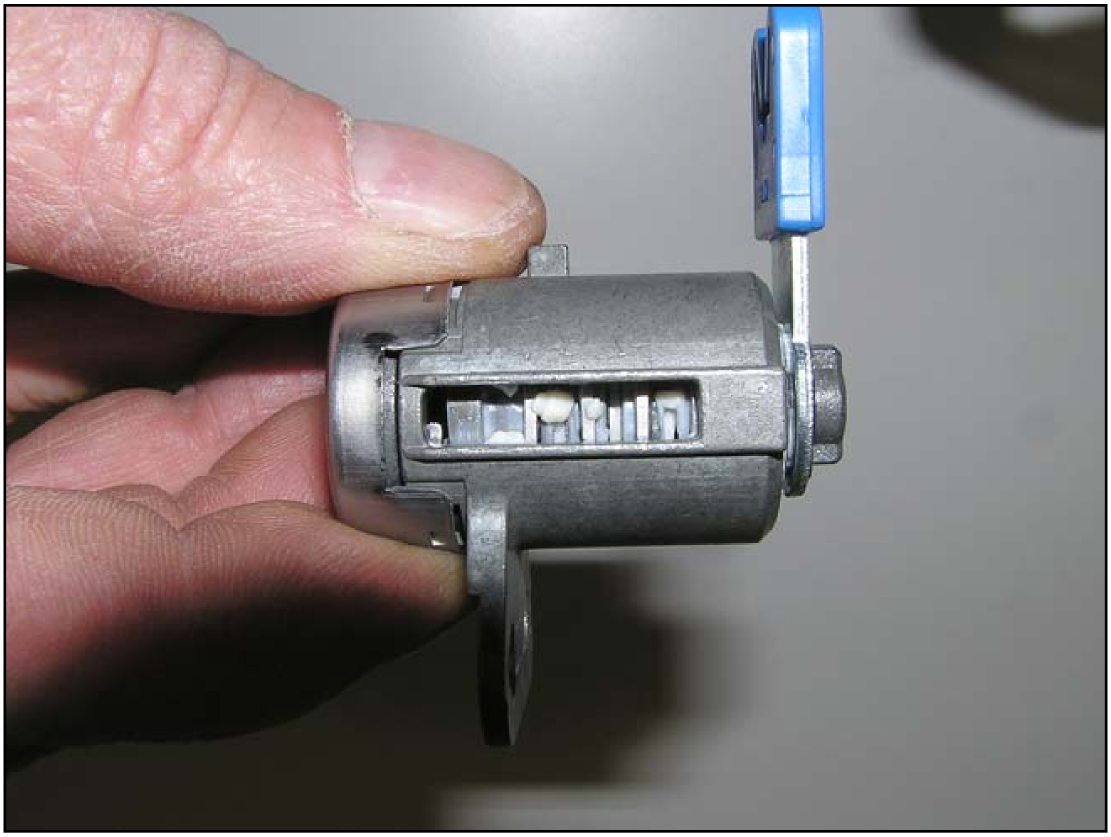
24. The front of the latch handle shown is retained by a plastic compression barbed fastener. To remove this fastener without damage, gently squeeze the loop, from the inside of the door cavity with a pair of pliers, while pulling the handle away from the body from the outside. This will free the front of the lift handle so we can more easily manipulate the lock cylinder out of the door.

25. Move the cylinder out to clear the painted surface of the door. The lock pawl is against the inside of the door skin.

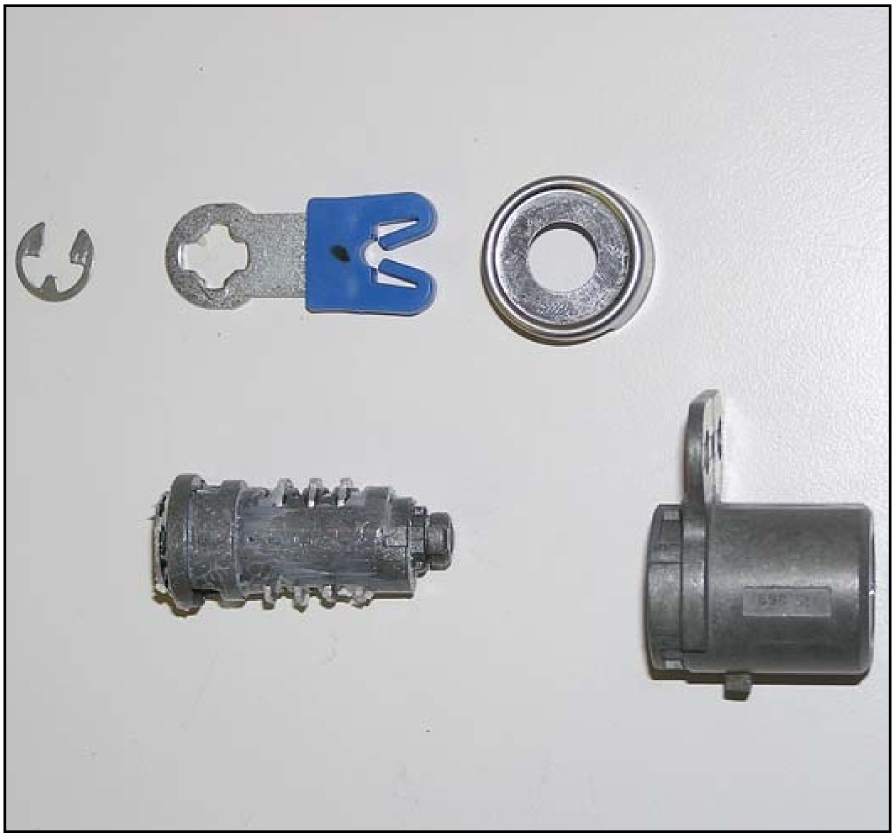




26. Carefully rotate the attachment ears of the door cylinder upward, as you turn the face of the lock toward the rear of the door. This will rotate the plastic linkage clip to a position that will easily slip over the end of the lock linkage without damaging the linkage clip/capture mechanism. If you damage the capture fingers of this rod clip, you will need to replace the pawl. Manipulate the clip off the end of the rod instead of trying to release it.



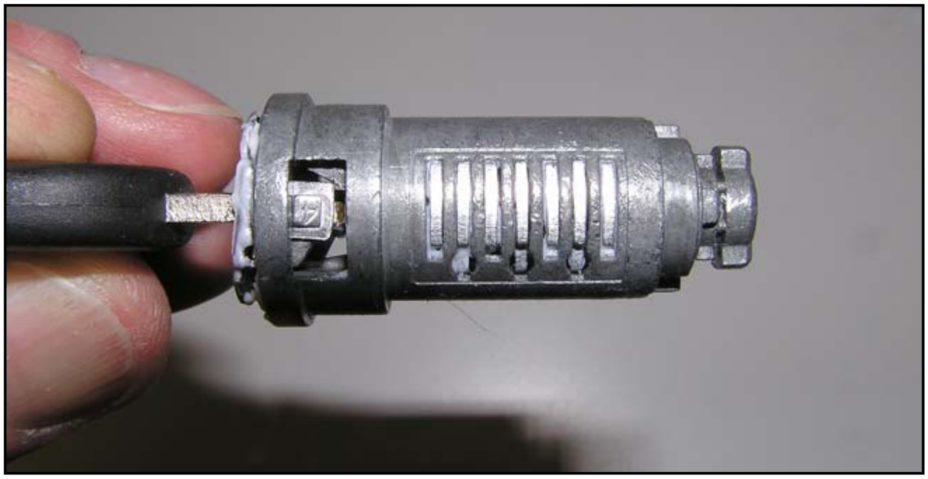
27. As you can see in the photo, all seven wafers are visible in the drain hole. If making a key to this cylinder, it would not be necessary to further disassemble the lock.

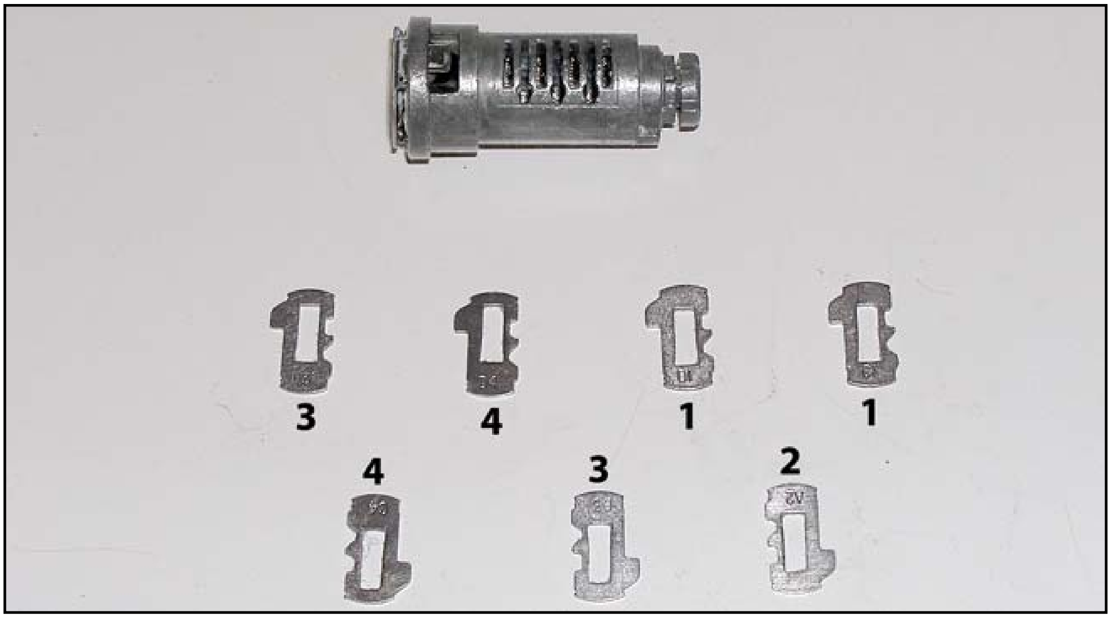


28. Disassembly of the cylinder found in the Impala, was straightforward. The cylinder uses an easy-off reusable chrome cap. Gently pry the cap from the front of the housing. Remove the "E" ring clip and lock pawl from the rear of the cylinder, and slide the plug out the front of the lock case. This lock did not have a "ball detent" in the side of the housing, but replacement cylinder Strattec #708593 comes with a tiny spring and ball bearing. The spring is loaded into a hole in the front of the plug, then a tiny ball bearing is compressed over the spring, as the plug is loaded into the housing. Add to this, a liberal coating of white grease, and you have an interesting puzzle. To simplify this assembly, make a loading tool by grinding a short groove in the side of the tip of a small straight blade screwdriver. This will allow you to cup the ball bearing, against the plug and lock case, compressing the spring as you load the detent. Magnetize the screwdriver to pick up the ball bearing. When disassembling this cylinder, watch for the ball bearing, at the front of the cylinder. Later models will surely have the detent in place. This one did not.

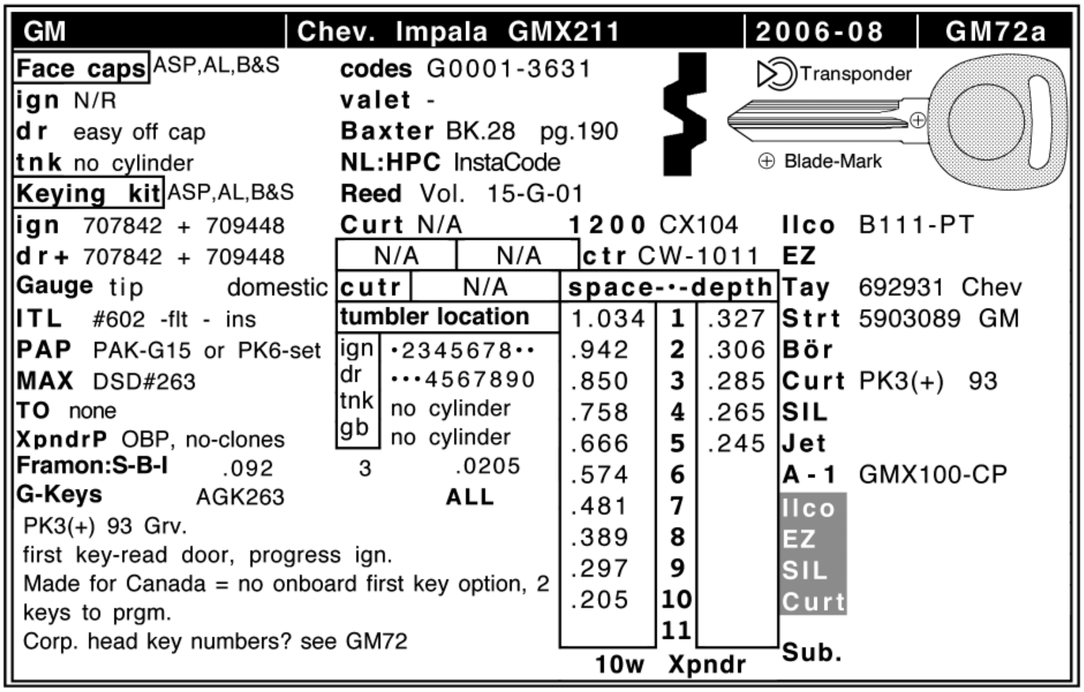
The ball bearing (PN #83379) and spring (PN #56303) can be found in the new Strattec GM 93 Groove service kit PN #7006412, Box 2.

29. The tumblers are arranged in a "true double-sided" alternating up and down configuration. This will find four wafers at the top of the keyway, and three at the bottom of the keyway, when viewed through the dust shutter. The dust shutter securely clips into the lock plug, against two shutter disc springs.





30. Wafers shown are numbered to indicate the correct cut depth. This code series has 5 depths and 10 cut positions. We find, however, that no cylinder on this vehicle uses space number one.



GM | **Chev. Impala GMX211** | **2006-08** | **GM72a**

Face caps ASP,AL,B&S
ign N/R
dr easy off cap
tnk no cylinder
Keying kit ASP,AL,B&S
ign 707842 + 709448
dr+ 707842 + 709448
Gauge tip domestic
ITL #602 -flt - ins
PAP PAK-G15 or PK6-set
MAX DSD#263
TO none
XpndrP OBP, no-clones
Framon:S-B-I .092 3 .0205
G-Keys AGK263 **ALL**

codes G0001-3631
valet -
Baxter BK.28 pg.190
NL:HPC InstaCode
Reed Vol. 15-G-01
Curt N/A
1200 CX104

N/A	N/A

ctr CW-1011

cutr	N/A

tumbler location

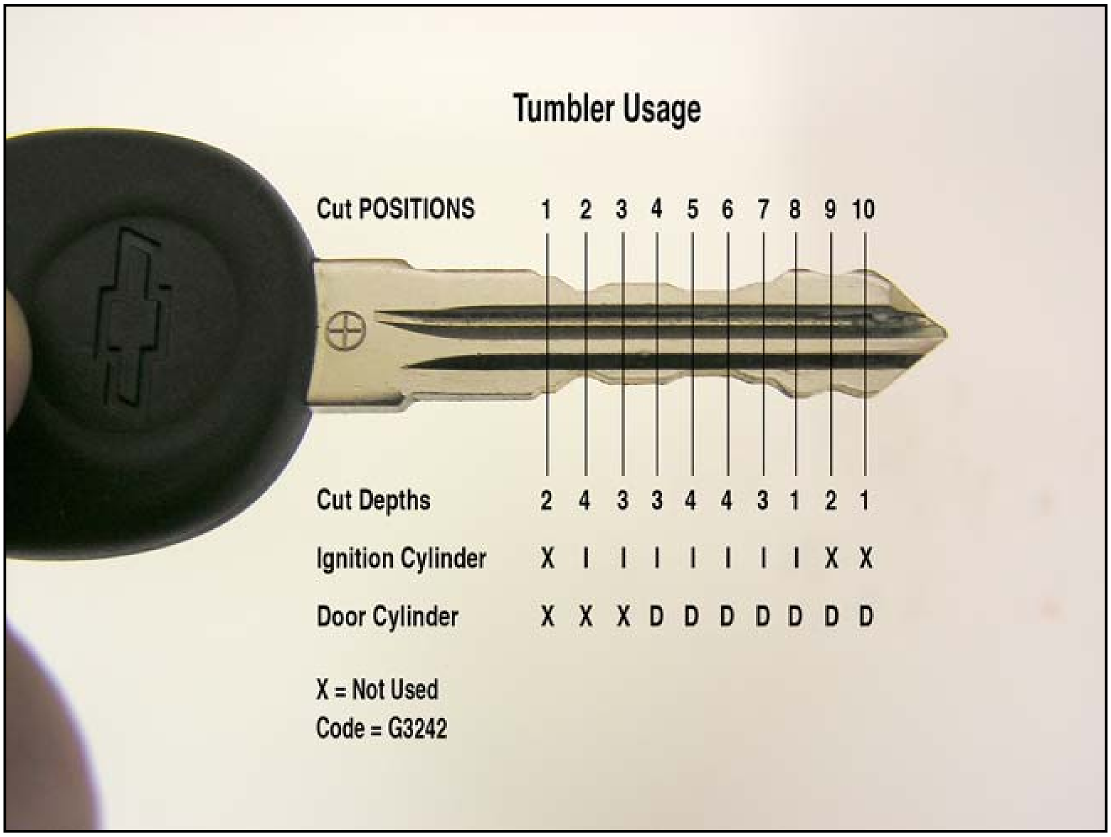
ign	•2345678••
dr	•••4567890
tnk	no cylinder
gb	no cylinder

space-•-depth		
1.034	**1**	.327
.942	**2**	.306
.850	**3**	.285
.758	**4**	.265
.666	**5**	.245
.574	**6**	
.481	**7**	
.389	**8**	
.297	**9**	
.205	**10**	
	11	

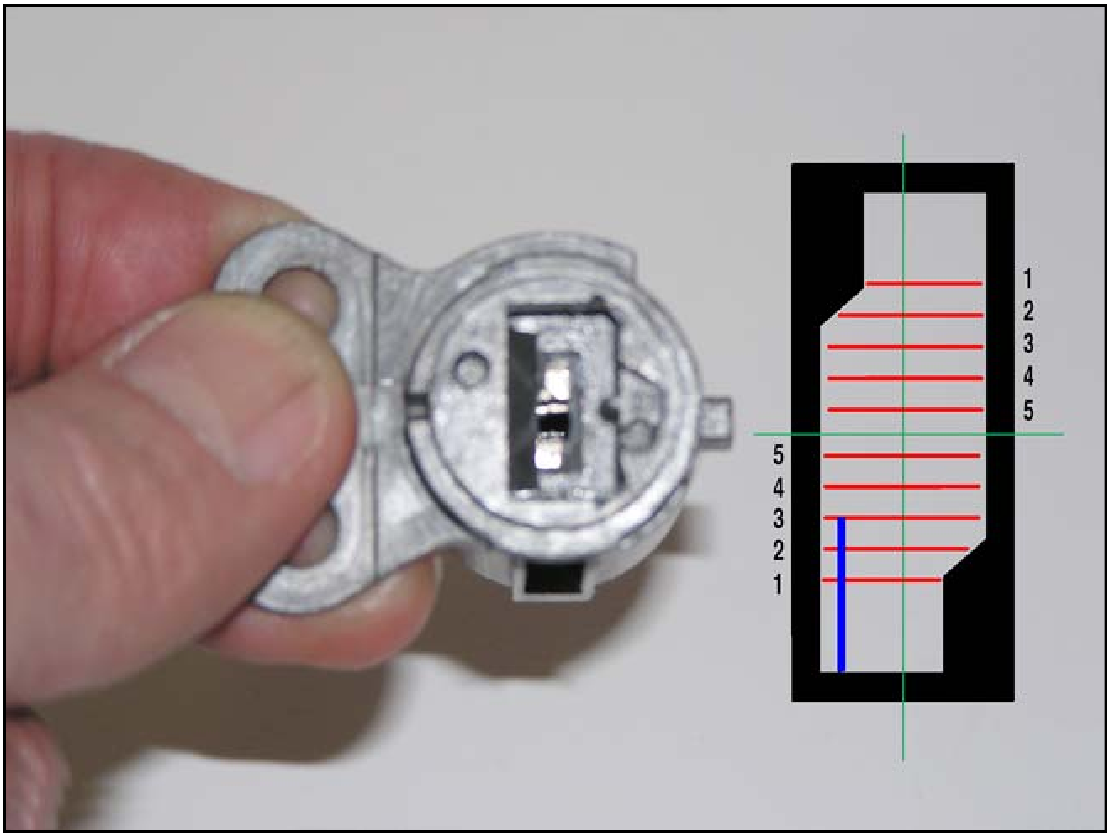
10w Xpndr

Ilco B111-PT
EZ
Tay 692931 Chev
Strt 5903089 GM
Bör
Curt PK3(+) 93
SIL
Jet
A-1 GMX100-CP
Ilco
EZ
SIL
Curt
Sub.

PK3(+) 93 Grv.
first key-read door, progress ign.
Made for Canada = no onboard first key option, 2 keys to prgm.
Corp. head key numbers? see GM72


Tumbler Usage
Cut POSITIONS 1 2 3 4 5 6 7 8 9 10
Cut Depths 2 4 3 3 4 4 3 1 2 1
Ignition Cylinder X I I I I I I I X X
Door Cylinder X X X D D D D D D D
X = Not Used
Code = G3242

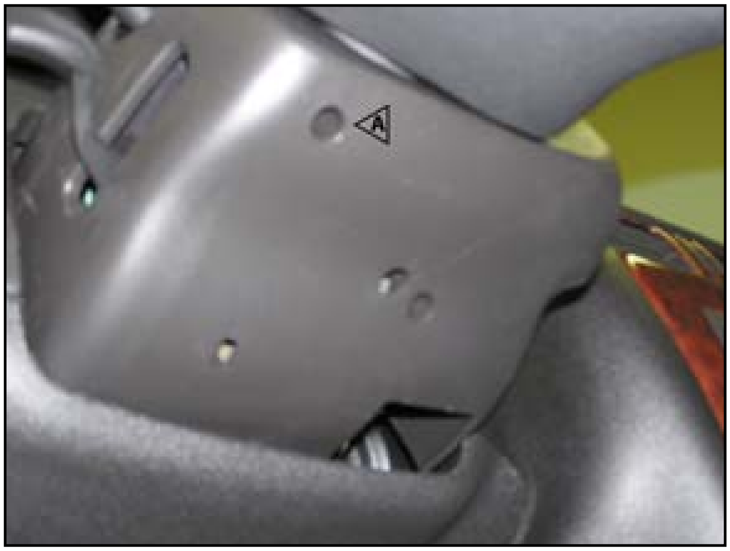
31. Photo illustrates the tumbler usage on this vehicle, using the Strattec lock cylinders found. The door cylinder has wafers in positions 4–10. The ignition has wafers in positions 2–8. Position number one is not used in any cylinder. An "X" in the illustration, indicates that the cut position is not used in that cylinder. The key code is "G3242." The cuts for this code are 2433443121, bow to tip.



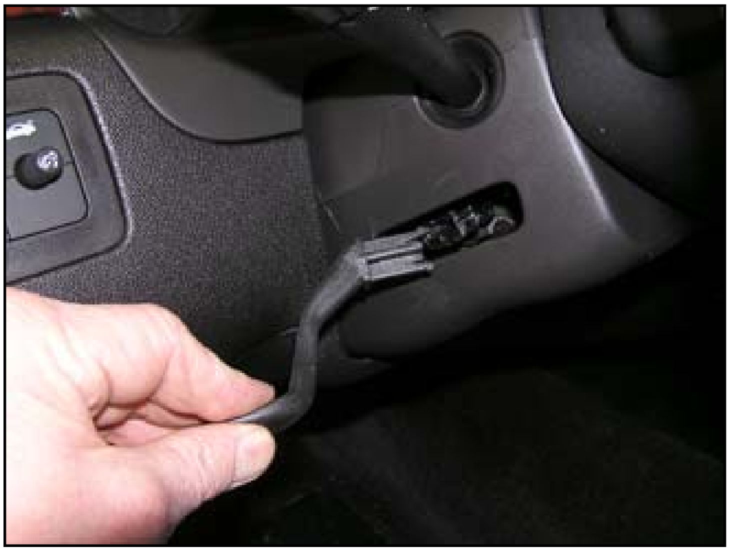
32. Photo shows the appearance of the keyway. You will note that the minor wards of the keyway have been eliminated to improve key insertion. The minor wards in earlier paracentric designs, made key insertion difficult. Redesign of the keyway, has eased the key insertion.

The graphic in this photo, illustrates the heights of the wafers in relation to the keyway warding. This cylinder is readable. (For sight-readers that use the Universal Wafer Lock Reader tool, the vertical line in the keyway illustrates the height of that tool in the keyway.)

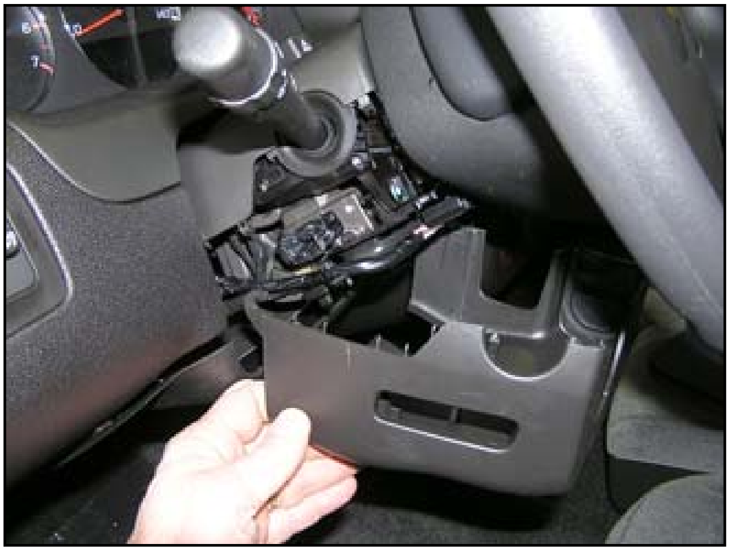
33. The 2008 Impala autos use a column mounted ignition. All vehicles surveyed were tilt column. Ignition removal will require separation and removal of the plastic column shroud.



34. The two part plastic trim shroud is held together and secured to the tilt column by a single T-25 Torx trim screw at "A." Remove the trim screw to separate and free the two-part column trim.

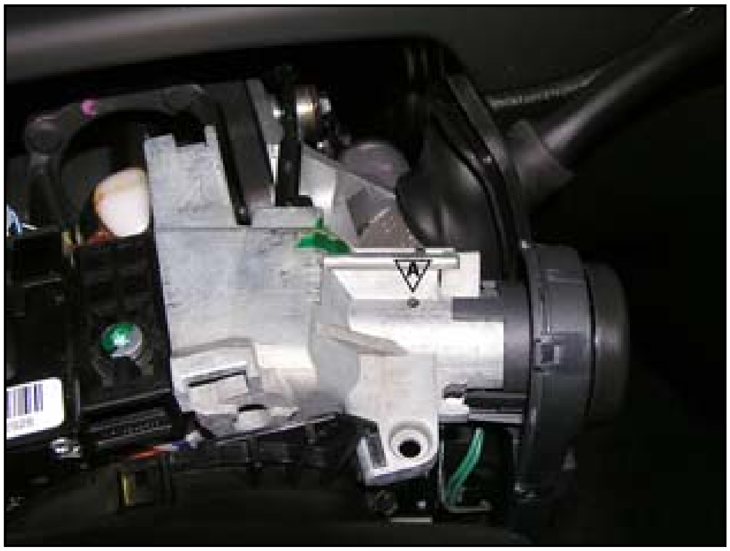


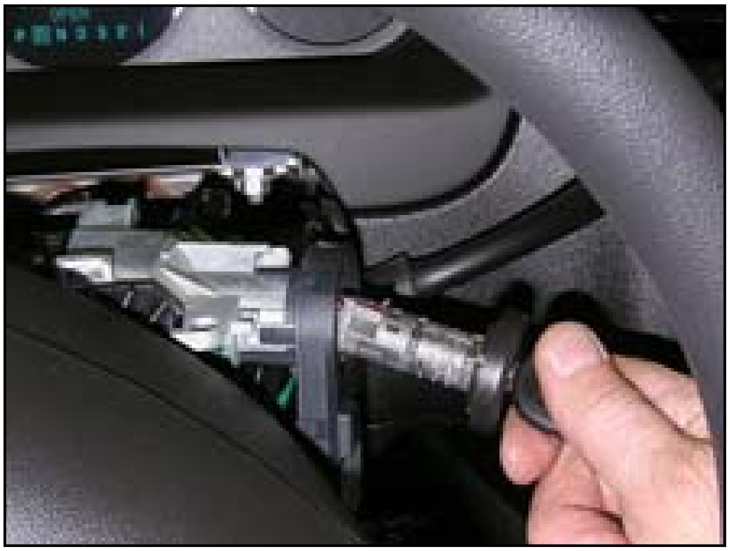
35. The tilt column control lever is made of glass-reinforced resin. It is retained by hooks molded into the tips of the lever. The lower forward corner of the flair at the base of the control lever is relieved to accommodate a flat blade screwdriver. Use a flat blade screwdriver, at the base of the lever, to lift and dislodge the retainers, freeing the lever from its socket. Do not try to pull on the top of the lever to remove it.



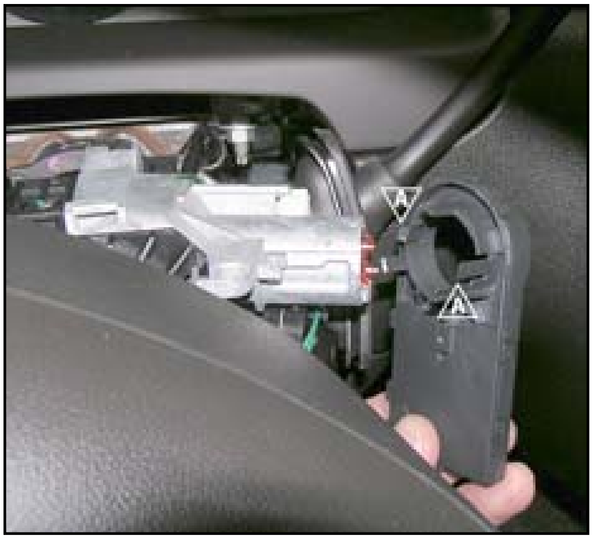
36. Unsnap and separate the column trim pieces, to access the ignition housing.

37. The ignition removal poke hole is at "A," in photo. This ignition is removed in the "START" position. The easiest way to remove this ignition is to rotate the ignition to the ON/RUN position, then pull the gearshift lever down to Reverse. Put your foot on the brake, and rotate the ignition to the start position. This will utilize the neutral safety switch to prevent the engine from cranking as you poke the plug retainer with a pointed instrument and remove the ignition. Place the gearshift lever back in Park, before removing your foot from the brake.



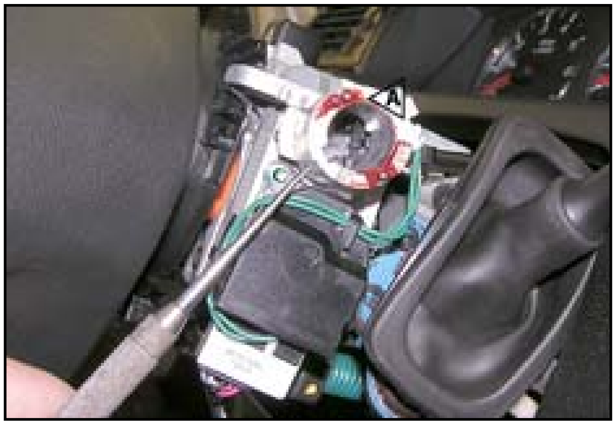


38. A key is used to remove the ignition cylinder from the ignition housing. Notice here, that the transponder antenna protects the front of the ignition housing, and prevents or complicates access to the front of the sidebar compartment. If you are used to picking these ignitions for removal, the antenna design here is much tighter than earlier models.



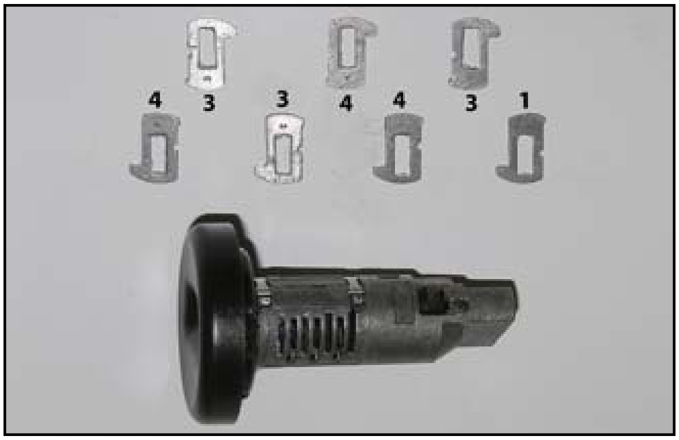
39. The transponder antenna ring is positioned and retained on the ignition housing by a number of plastic tabs. Two of these tabs hook onto the ignition housing, to hold it in position. The retaining tabs are shown at "A" in photo. Use a small straight blade screwdriver to gently lift the retaining tabs, to release the antenna ring assembly from the ignition housing. Rough handling will certainly break these retaining tabs.

41. This Strattec ignition contains seven wafer tumblers. It is combinated in positions 2 thru 8. The ignition is true double sided, with four tumblers at the top of the keyway and three at the bottom. This is a sidebar cylinder, which is not readable through the keyway.



40. If the ignition does not match the door cylinder, it will be necessary to pick the ignition for removal. The scriber in photo indicates the best location for a drilled hole to apply pressure to the sidebar. You can easily locate the hole below the rib in the ignition housing, and above the plastic locating tab on the transponder antenna ring. The antenna ring cannot be removed until the ignition has been picked and removed.

After picking this ignition, you must insert a removal key, smooth-cut to full depth in all positions, to depress the key-sensing button, "A," in the ignition housing. If you rotate this ignition to the ON/RUN position without using the removal key, you will shear the tip off the key-sensing switch.



42. The wafer tumblers are numbered to identify the cut depth. This ignition plug was not stamped or lettered to identify the code number. Pick to remove this ignition and remove the tumblers to read the cut depths for a working key.

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